

OCTOBER 1956

CCJ COMMERCIAL CAR JOURNAL

A CHILTON PUBLICATION

THE MAGAZINE FOR TRUCK AND BUS FLEET OPERATORS



in this issue

Help Wanted: More and Better Mechanics
Nation's Biggest Truck Shop Opens
Two Bus Fleets Report on Daily Servicing

Coming in November!

New **DODGE**
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New Payload Capacities



New Forward Look Styling



New Performance Features



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J. B. E. Olson Corporation, 1740 Broadway, New York 19, N. Y.

COMMERCIAL CAR

— OCTOBER 1956 • Volume 92 • No. 2 —

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ON THE COVER . . .

It's new model time again, and it won't be long before this is a common sight in front of dealers' showrooms. Predictions call for auto production to reach about seven million this year, and that's good news for auto transporter fleets who'll move about 80 per cent of the volume from the assembly plants to the dealers' showrooms.

JOURNAL

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Chestnut and 56th Streets, Philadelphia 39, Pa., U. S. A.

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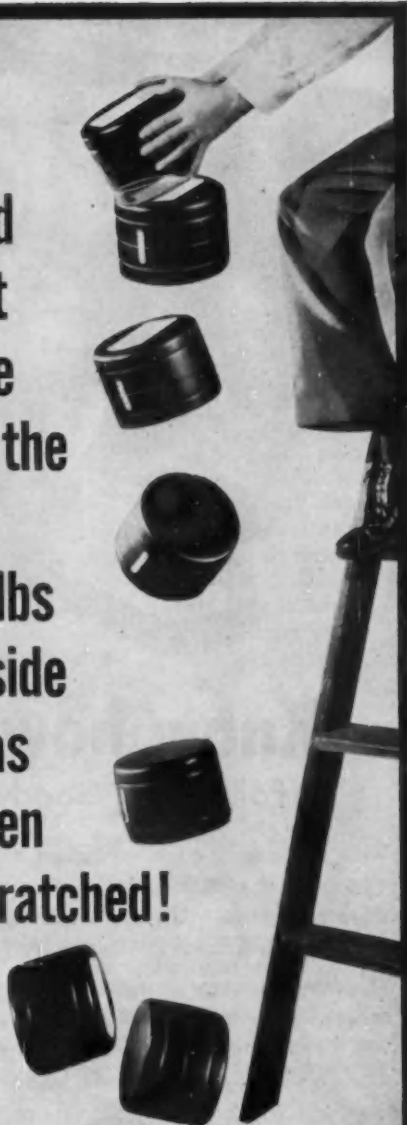
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COMMERCIAL CAR JOURNAL is published monthly by Chilton Co., N. W. Cor.
 Chestnut & 56th Sts., Philadelphia 39, Pa. Subscription price: United States and
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THE OVERLOAD

E D I T O R I A L C O M M E N T



STICKERS and posters like the one above may or may not appear later this month in your community. It's largely up to you. It's another chore. But also another opportunity to build public good will.

Background for this first national attempt at Transportation Week stems largely from the Associated Traffic Clubs of America. Local elements of the ATC pulled off their first attempt in Houston in 1953. By 1955, they had built it into a Texas-wide affair, officially proclaimed by the Governor.

This year the first nation-wide effort is timed to coincide with the association's annual convention at Miami Beach. By great good fortune it also coincides with the American Trucking Assns. annual convention in New York City.

Team work was indicated from the beginning, but the idea got off to a slow start. However, early last month it received Presidential endorsement. Said President Eisenhower, "National Transportation Week gives the American people a better understanding of the vital role of transportation in the defense and prosperity of the United States."

Now, as this is being written in late September, ATA is under full steam. Work kits should now be in the hands of industry leaders; more are available from ATA headquarters in Washington to anyone interested. The Private Truck Council of America is circularizing its membership. And the ATC committee has called

off its planned National *Truck* Transportation week in November.

Thus, the road is clear for all truck interests to do what they can—and in a hurry. Just what you can do depends entirely on the local situation. Chances are fair to good that traffic clubs in your area have a supply of publicity material on hand. At least, they should have a plan of action recommended by their national group; at best, a well-organized program already under way. If so, by all means join up, remembering that railroads, pipe-lines, air lines and shipping interests are all in the act.

If *nothing* has been done, the program is up to your own ingenuity. And the last minute bonus for such a situation is that you have nothing but trucks to promote. Probably too late for fancy budgets and community-wide programs, you can still carry the ball with such things as these:

1. Conduct an "open house" of your terminal and shop facilities replete with exhibits of your latest equipment in rolling stock, materials handling, safety testers, dispatching and billing. One example: Dan Dugan has done it for years in Sioux Falls. Manufacturers are glad to loan him cutaways and other specialized equipment exhibits. And he always has an array of safety trophies.

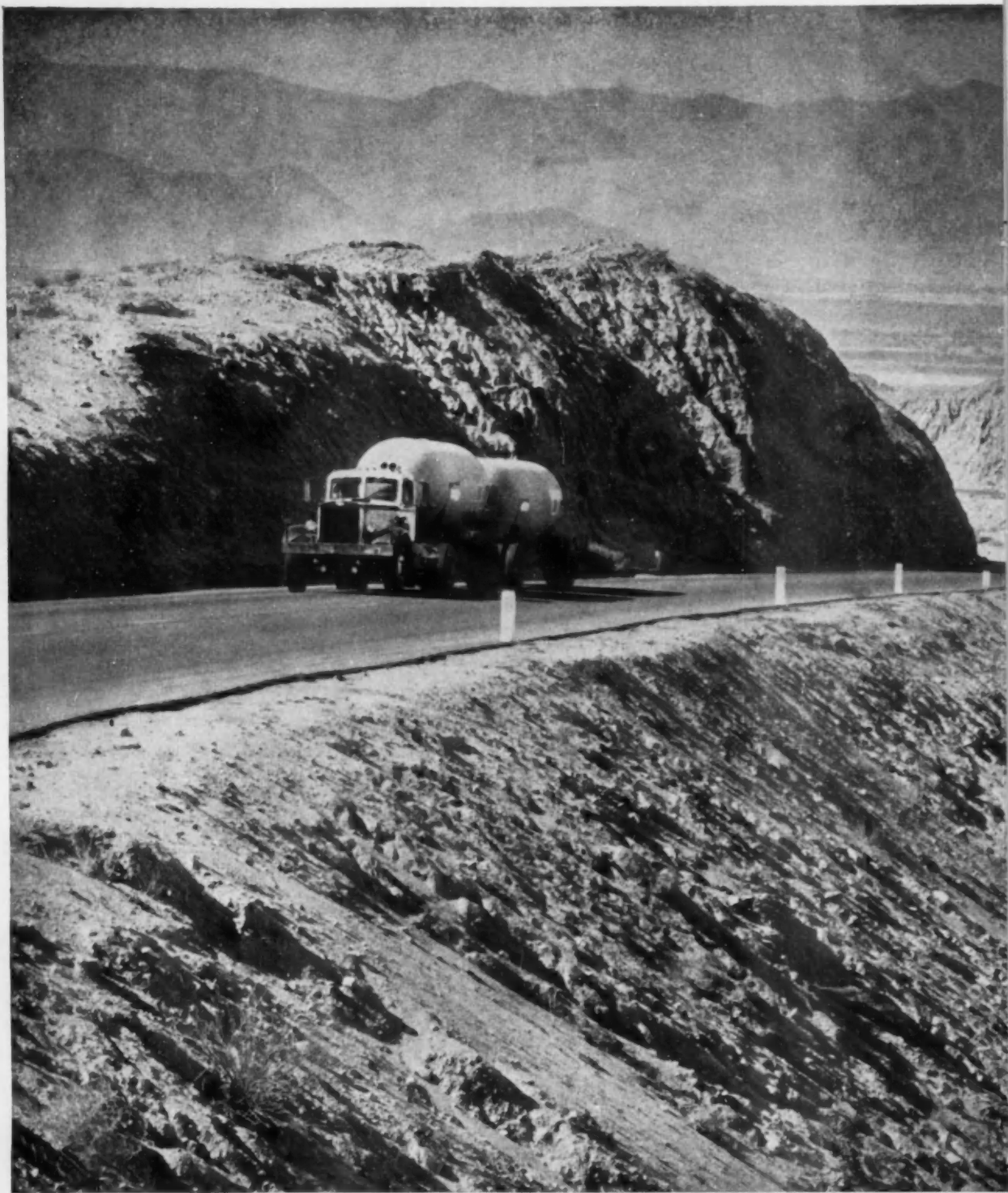
2. Together with other trucking firms put on a "fair-ground" display on a large parking lot, include: reefers, tankers, auto transports, live-stock trailers and perhaps some off-highway equipment.

3. Arrange a "miracle mile" on Main Street with merchant displays testifying that all of their merchandise got there by truck.

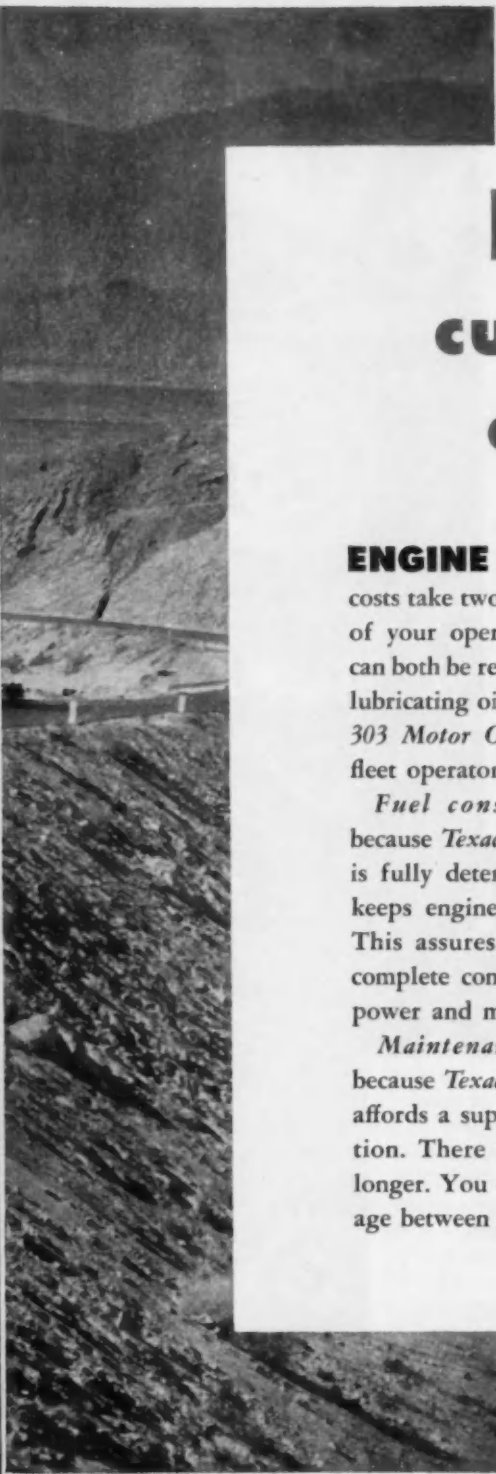
4. Whatever else you do, don't forget the schools. The kids are nearly always your best listeners, most receptive to your invitations. They are your future customers and employees.

It's a rush job. Good luck and happy hunting!

Bart Rawson
Editor



TEXACO



HOW you can cut two important operating costs

ENGINE maintenance and fuel costs take two of the biggest bites out of your operating dollar—but they can both be reduced by using the right lubricating oil. Here's how *Texaco D 303 Motor Oil HD* is doing it for fleet operators everywhere—

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Maintenance costs are reduced because *Texaco D 303 Motor Oil HD* affords a super-tough film of protection. There is less wear. Parts last longer. You can safely increase mileage between overhauls.

Other cost reducing lubricants are *Texaco Marfak* for chassis and *Texaco Marfak Heavy Duty* for wheel bearings. For multipurpose use there is *Texaco Marfak Heavy Duty Special 2*—the new lithium-base grease. All give longer lasting protection against wear and rust.

In transmissions and differentials, *Texaco Universal Gear Lubricant EP* assures smoother, quieter operation, extends gear life.

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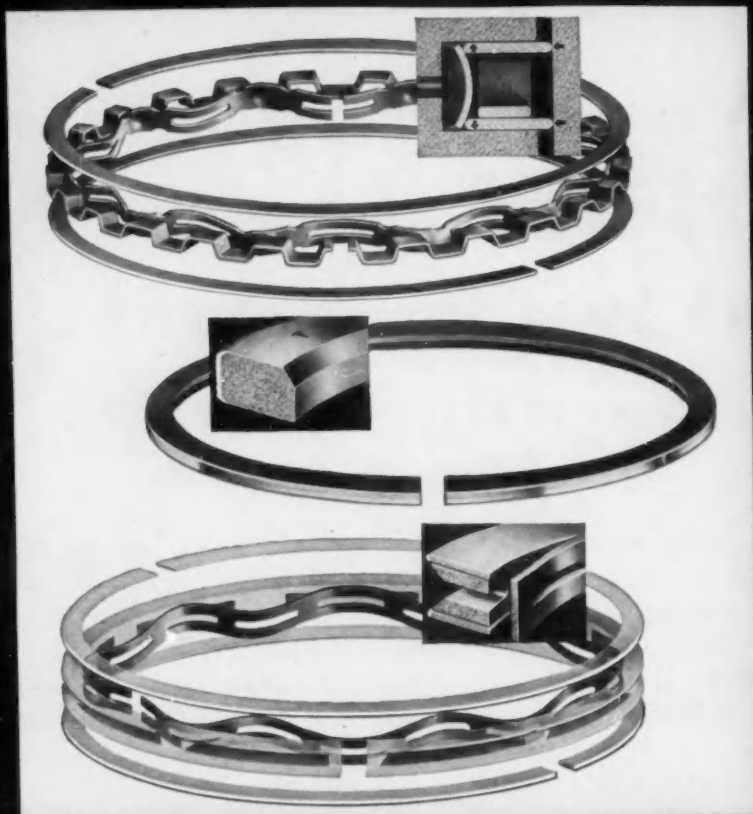
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Condition vs Mileage Maintenance

FRANK CORDONE'S intriguing and controversial article in the May issue ("Condition vs. Mileage Maintenance," page 68) has aroused considerable interest as we hoped it would. It will be recalled that the article attempted to prove that fixed mileage maintenance on a certain group of buses at Syracuse Transit Corp. was more economical in the long run than was a condition or inspection-type maintenance on a separate group of buses operated by the same property.

The following paragraphs contain excerpts from comments made by several well-known fleet operators of both truck and bus operations. In most cases they are immediately followed by Mr. Cordone's specially-prepared rebuttal argument.

Wear Doubled in 20,000 Miles

SAID W. W. (PAT) VANDERCOOK of F. J. Boutell Driveaway Company, Pontiac, Mich.: "One of the things in Mr. Cordone's story that we find difficult to understand is why an engine, which they tear down at 80,000 miles, is in very good condition while the same engine run 20,000 miles further or approximately 100,000 miles needs major overhaul. It seems to be in quite a severely run down condition with cylinder wear doubled during the last 20,000 miles of service."

Cordone's rebuttal: "We believe that any combustion engine if operated substantially beyond a certain degree of lowered efficiency may deteriorate very rapidly. In our case we know that excessive blow-by, broken piston rings, and exhaust valve failures develop during this 20,000 mile period. We have also noted a marked increase in the amount of abrasives found embedded in the crank bearings during this period. We have further observed that operation under lowered efficiency results in the engine being worked harder in direct gear and for longer periods in the lowered ratios. The last named condition is directly reflected in increased fuel consumption."

Work Load Peaks

ALSO FROM Mr. Vandercook came this comment: "Another fault of condition maintenance as reported by Mr. Cordone is the extra

load on the maintenance department by lack of work at times and too much work on other occasions. This sort of condition would certainly not exist in our type of operation . . . except that mileage scheduled maintenance could conceivably make repairs fall at practically the same time. For instance, if several new tractors were purchased and installed at the same time, and they normally run practically the same mileage each month, then we could see that on a mileage basis heavy repair services could all fall in a short space of time."

Cordone's rebuttal: "As to the variation in work load, under our mileage maintenance, practically no units are scheduled for overhaul in the heavy riding months of November and December. A given number of units are scheduled each month for the remainder of the year and the work force has been tailored to fit this production . . . in reference to new vehicles and the possibility that their maintenance functions may fall in the same period, we have that situation under control. Our operation is inherently made up of trippers and long runs of varying mileage. By allocating equipment, staggered mileage is attained."

\$2625 Saving on Compressors?

HAROLD A. GRENNERT of the Cincinnati, Newport and Covington Transportation Co. bases most of his argument against fixed mileage maintenance on his experience with air compressor overhauls: "We have a fleet of 26 GM diesel coaches with a total chassis mileage of 4,749,630 miles. The lowest mileage on any of these buses is approximately 117,000 miles and the highest is approximately 250,000. Under our old policy of changing compressors at 100,000 miles we would have had at least one change on all of the buses and two changes on several. Actually the total would work out to 35 compressor overhauls at \$75 each or a total of \$2625."

"But all of the compressors are still giving good service, not passing too much oil and pump up time is good. There is the possibility of a road failure eventually on some of these units."

(TURN TO PAGE 12, PLEASE)

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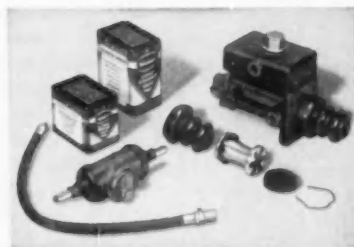
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The Oakite Hurriclean steam-detergent gun weighs next to nothing—6¼ lbs., to be exact. It handles like a dream. A twist of the tube grip changes direction of the spray, so you don't have to drag and twist hose lines . . . you don't even bend to do the underparts of a chassis. And it's the coolest gun to use, too—the steam travels in an inner insulated tube, the cold detergent solution in the outer tube. There's no danger of a burn.

Light, safe, easy, but powered for blasting loose the stickiest grease and grime—that's the new Oakite Hurriclean steam-detergent gun. Try handling it. Call your local Oakite Technical Service Representative, or write to Oakite Products, Inc., 26D Rector Street, New York 6, N. Y.



Export Division Cable Address: Oakite
Technical Service Representatives in Principal Cities of U. S. and Canada

CCJ AT YOUR SERVICE

Continued from Page 9

but here again we must evaluate the cost in the overall picture."

Cordone's rebuttal: "Apparently Mr. Grenert's previous 100,000 mile figure is not suitable for his new GM coaches. However, in our opinion the end objective in any kind of maintenance is low overall cost of operation and not necessarily the maximum mileage that can be obtained.

"For example, a heavy overhaul compressor exchange may cost twice as much as a light overhaul exchange. Also frequent servicing of application valves, relay valves, air lines and other units fouled up by oil pumping compressors may contribute to overall costs. Another consideration is the cost of road failures."

Do Drivers Make the Difference?

WARD L. BENNETT of the Baltimore Transfer Company, Baltimore, Md., says: "In many cases we find very wide variations between the cost of identical units. This variation seems to be entirely due to the driver because the same experience would follow through with the same drivers as they were assigned to new vehicles. In some instances, we have found that there would be a variation of as much as twice the difference in the maintenance cost. It seems to me that if we were to set up a predetermined mileage for replacement of units that we would, firstly, need to overhaul some jobs before the predetermined mileage point and, secondly, we would be sacrificing a great deal of potential mileage in other instances.

"As an example of this experience I would like to cite our present engine overhaul experience. We are now approximating 135,000 to 140,000 miles between engine overhauls. There are a certain number of these engines which have been up for overhaul at possibly 95,000 to 100,000. Other engines will go up to 175,000 to 180,000 miles, and in a few cases we have found some exceeding 200,000 miles.

"I believe that there would always be cases where it would not be possible to run units to a predetermined mileage because of variations in driving habits. This would mean that the average mileage that could be obtained between overhauls would necessarily be less than actual mileage interval that we set up for normal replacements. On the other hand, where we are using the 'condition' basis it is very possible to

(TURN TO PAGE 16, PLEASE)



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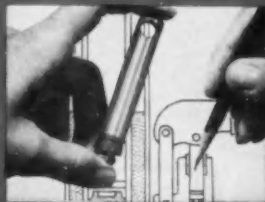
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...IT PAYS TO CARRY A**



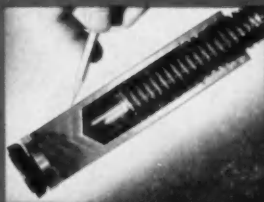
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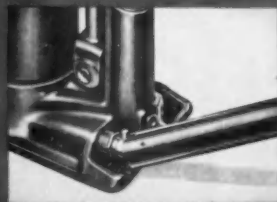
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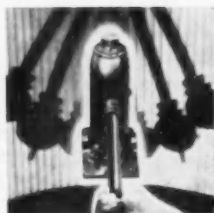
"Series 900" Portable Hydraulic

JACK

Experienced truck operators know a safe, dependable tool box jack is a "must" to keep pay-loads rolling. That's why you'll find Walker *Series 900* Portable Hydraulics in trucks that go coast to coast or just around the block.

From cap to base, Walker *Series 900*'s are the product of years of on-the-job experience; careful, constantly refining engineering; and manufacturing "know-how."

Take the new "Projectile" tank. It's designed in the shape of a heavy armor-piercing shell to withstand shock . . . to better resist eccentric loading . . . and to distribute the load more evenly on the base.



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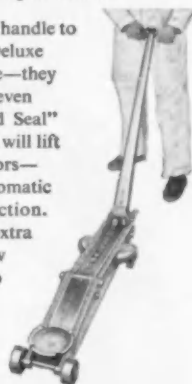
What's News at Walker

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No. 882—2 tons capacity.

No. 884—4 tons capacity.



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topple or slip, regardless of height . . . there are no springs or pins to shear. 2 to 5 ton capacity.

For those Big Jobs "Down Under"

For safe, easy, time-saving removal and replacement of truck and bus transmissions, differentials, front and rear axle units, the famous Walker *Unit Lift* No. 798 is one of the handiest lifting tools a shop can own. In most cases one man can do these difficult jobs with far greater ease and in much less time than two or three men under ordinary conditions. Low lifting point—3"; raise—22"; full height—25". Lifting capacity—1000 lbs. See the Walker No. 798 at your Walker Jack distributor.



Hydroyl-50 for Best Jack Performance



Brake fluids and other substitute jack oils can ruin any hydraulic jack. Walker Hydroyl-50 is a scientifically compounded *Oil Alley* developed especially for jacks. A new anti-foaming agent prevents bubbling and fizzing when Hydroyl-50 is released under pressure . . . stops air binding to assure smooth jack operation. By leaving a protective film over interior parts, Hydroyl-50 guards against interior corrosive rust formed by moisture. Special preservatives make cup leathers last longer. When you refill your jacks with Walker Hydroyl-50, forget weather worries—it pours at 50° below!

Walker Leads in Jacks

In transportation . . . in industry . . . in every field of activity where heavy loads must be lifted safely and economically, Walker Jacks are the standard of dependability.

**Your Walker distributor is
JACK HEADQUARTERS**



Continued from Page 12



big wheel

... in the hose clamp field ... that's AERO-SEALS — new quick-attach JET or REGULAR. They ignore the most severe vibration, never shake open! Precision worm gear drive means positive self-locking every time. Hose lasts longer, too, because AERO-SEAL's wide, smooth band provides even pressure around hose — no leaks! Stainless steel band resists corrosion, gives far longer service. Re-usable many times, AERO-SEALS are available in a complete size range for a variety of uses.

Insist on genuine AERO-SEALS for complete satisfaction, bigger profits, happy customers. Ask your jobber.



and AERO-SEAL REGULAR WORM GEAR HOSE CLAMPS

BREEZE CORPORATIONS, INC.,
700 LIBERTY AVE., UNION, N. J.



get a mileage up to or far exceeding the mileage interval that might be set on mileage maintenance program."

Cordone's rebuttal: "Mr. Bennett finds a wide variation in unit life and believes it may be caused by variables in drivers, speed, loads, terrain, etc. In the past, we too have pointed to these convenient reasons and, no doubt, they are contributing factors in some situations. More recently, however, we suspect that at least in our own operation, nonuniformity of maintenance may be the explanation. . . .

"Incidentally, it appears that some people may be confusing our methods with outdated fixed mileage procedures. We refer to those programs in which round figure mileage was selected with little or no basis in fact and in some cases with little regard for expense. Mileage maintenance, as we practice it, is predicated on the condition of units at various mileages and a careful study of overall costs.

"Initially, when new models are put into operation no unit mileage is set up. As mileage accrues, a study of the units in relation to lowered efficiency and approaching breakdown will add in determining the overhaul mileage. The first figures will not necessarily be the final figures. Revisions upward or downward may be in order. The determining factor is the overall cost over a period of time."

Mileage Maintenance at PIE

J. W. Riesing, Director of Fleet Maintenance for Pacific Intermountain Express, commented: "Our maintenance is strictly on a fixed mileage basis with an "A" check performed at 1400 miles, a "B" check at 5600 miles, a "C" check at 60,000 miles, a "D" check at 180,000 miles, and an "E" check at 360,000 miles. The "D" and "E" checks are overhauls, and if an engine or assembly fails prior to these, they are classified as failures.

"With the 'condition' maintenance basis, there are too many people spread over a large area that are involved with the decision whether to overhaul the unit or not, and subsequently you have too many road failures. These road failures are costly; more so than rebuilding the units on a mileage basis . . ."

Engine Hours May Be Best

FINALLY, FROM ALEC NEUHAUS of Inward Freight in Melbourne, Australia,
(TURN TO PAGE 20, PLEASE)



Airfoam—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

"Mike wants a longer run, boss—it'll give him more time to enjoy his full-depth Airfoam seat!"

How full-depth AIRFOAM seats ►
increase driver-efficiency, cut costs:

You can specify Full-Depth
AIRFOAM seats and backs as
original equipment on any truck!
But be sure it's



Airfoam
MADE ONLY BY

GOODYEAR

The World's Finest, Most Modern Cushioning

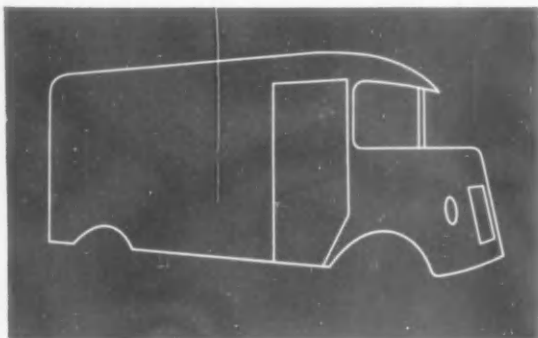


MULTIPLE-EXPOSURE PHOTO showing how ordinary cushions amplify drags and jars, cause driver to bounce up as controls come down. Trying to compensate, driver cramps muscles, frazzles nerves, drains efficiency. Cushions wear out, too!



SAME CAB. AIRFOAM (with over half-a-million fresh air cushions per cubic inch) muffles and absorbs drags and jars, keeps driver's motion in step with controls. Result: Fresher, happier, more efficient drivers—plus undamaged cushions!

Goodyear, Automotive Products Dept., Akron 16, Ohio



"In a million-mile Kaiser Aluminum



This handsome, durable truck body made of Kaiser Aluminum was sold by J. B. E. Olson Corp., New York City, designed and fabricated for Olson by Aerobilt Bodies, Inc., subsidiary of Grumman Aircraft.

MILLION-MILE COST COMPARISON

ALUMINUM-BODY UNITS				HEAVY-BODY UNITS			
Truck No.	Age in Miles	Miles Per Gal.	Cost Per Mile	Truck No.	Age in Miles	Miles Per Gal.	Cost Per Mile
A-1	109,000	10.1	.091	S-1	112,000	7.6	.093
A-2	113,000	9.5	.090	S-2	98,000	7.8	.103
A-3	100,000	9.4	.105	S-3	67,000	7.6	.125
A-4	103,000	10.3	.099	S-4	92,000	9.4	.098
A-5	103,000	11.5	.093	S-5	90,000	8.1	.104
A-6	132,000	11.0	.079	S-6	118,000	8.7	.088
A-7	106,000	11.3	.084	S-7	102,000	9.5	.091
A-8	126,000	10.5	.074	S-8	71,000	8.2	.119
A-9	93,000	10.7	.103	S-9	109,000	7.6	.096
A-10	100,000	.112	.085	S-10	63,000	7.1	.150
A-11	111,000	12.2	.071	S-11	81,000	7.8	.115
	1,196,000	10.8	.088		1,003,000	8.1	.104

These actual costs used with the permission of Dreikorn's Bakery, Inc., a member of the Quality Bakers of America.

This cost comparison of Dreikorn's Bakery's two types of delivery bodies is based on detailed cost figures for each truck. Actual mileage of each truck was used in determining the miles per gallon and cost per mile; comparison gives nearest thousand figure.

Cost-per-mile figures include all operating and maintenance expenses depreciation, insurance, license fees undistributed time and other fixed and overhead charges.

test, truck bodies made of cut our operating cost over 15%"

says Joe Hohol, Fleet Supervisor
Dreikorn's Bakery, Inc., Holyoke, Mass.

"An analysis based on our million-mile cost comparison showed that over-all operating cost on our fleet of multi-stop route trucks was \$0.104 per mile for steel-bodied trucks.

"The cost for trucks with aluminum bodies was only \$0.088 per mile. A cost reduction of over 15% or 1½¢ per mile.

"If we were to project this over 200,000 miles of operation per truck, aluminum bodies would save us over \$3600.00 per truck. This would be more than an initial purchase price of the entire truck.

"The use of aluminum bodies also makes it possible for us to get greater body-metal thickness so we save the cost of frequent denting repairs. Aluminum is rustproof, so painting maintenance is minimized.

"There's less driver fatigue, too. Trucks handle easier. Doors are easier to open and close. That's important on multi-stop service. And the aluminum bodies have greater inside width so we can handle more loaves of bread per truck."

Let a Kaiser Aluminum engineer show you how you can get more economical operation, larger payloads, and less maintenance by switching to bodies made with light, strong Kaiser Aluminum.

Call the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc., *General Sales Office*, Palmolive Bldg., Chicago 11, Illinois; *Executive Office*, Kaiser Bldg., Oakland 12, California.

See "THE KAISER ALUMINUM HOUR." Alternate Tuesdays,
NBC Network. Consult your local TV listing.

INCREASE YOUR PROFIT MARGIN WITH

Kaiser Aluminum

A member of the Truck-Trailer Manufacturers Association

CCJ AT YOUR SERVICE

Continued from Page 16

comes this interesting comment: "Measuring engine and transmission wear by the mileage method is highly unreliable. The fixed period or fixed hours method is more accurate. . . . A tractor operating over the New Jersey Turnpike will accumulate during one hour approximately 40 miles and 120,000 engine revolutions. A similar tractor climbing steep grades in Montana may, in the same time, put away only 15 miles but 180,000 engine revolutions. Comparing wear in these two engines by the mileage they have traveled could lead to gross inaccuracy. The same, to a big extent, would apply to the transmission. One used on straight, level highways is subject to less wear than a transmission in a tractor using low ratios frequently.

"What is the position then with regard to a tractor traveling both flat highways and steep, twisting grades?

"Our solution to the problem was inexpensive, requiring little paper work and no special

equipment. We keep accurate fuel consumption records for each tractor. Since it is our opinion that the wear sustained by an engine is in direct proportion to rpm's the engine has worked (and this in turn to the fuel consumed), the fuel consumption record gives a clear picture of the condition of the engine.

"Once it is established that an engine will give good, reliable performance until it has burned a certain amount of fuel (in the case of our diesels 12,000 imperial gallons) it can be safely assumed that all engines of the same type and model will give the same service, providing they all receive the same care. Type of work has little bearing.

"For the transmission a calculation based on engine wear and mileage is required for preventive maintenance records."

Long Term Tire Preservation

ARMY'S CHEMICAL Corps has been experimenting with long term preservation of tires. One method being tried at its Eastern Chemical Depot in Maryland is to coat tires with an adhering plastic made of an aluminum pigment. It has been used on tires of "blocked-up" vehicles in outdoor storage for five years. Coating comes off by stripping—peeling it off like the skin of a banana. It tends to protect the

(TURN TO PAGE 24, PLEASE)

cut TRUCK MAINTENANCE costs

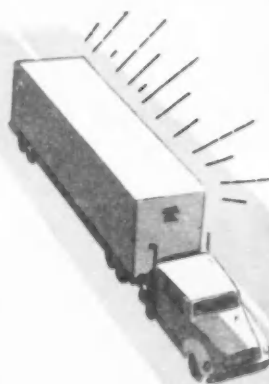
with CEE-BEE's cleaning
and brightening method

You realize many savings when you introduce CEE-BEE washing in your truck-trailer operation. CEE-BEE eliminates costly aluminum skin replacement caused by surface corrosion...removes all smoke and oil stains and road film without harm to painted surfaces.

And CEE-BEE is fast...no tie-up of rigs...no large crews needed...less washings necessary.

In addition to time and dollar savings, your CEE-BEE brightened trailers will have that bright "new look"...an impressive rolling advertisement for your company.

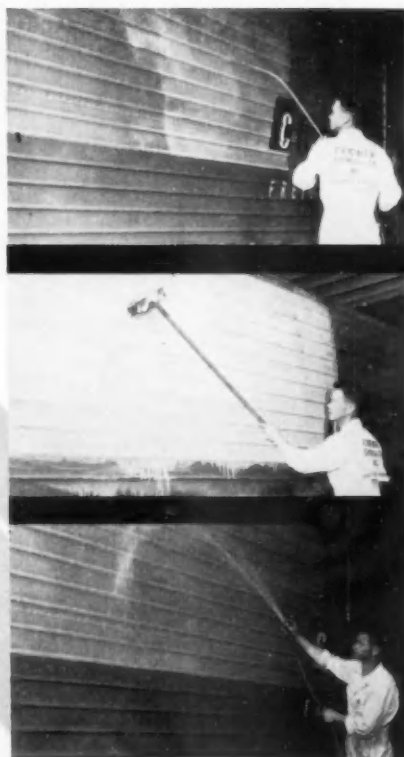
Ask your nearest CEE-BEE representative to show you how to cut your truck maintenance costs. Write for free brochure and list of representatives.



CEE-BEE

CEE-BEE CHEMICAL CO., INC.

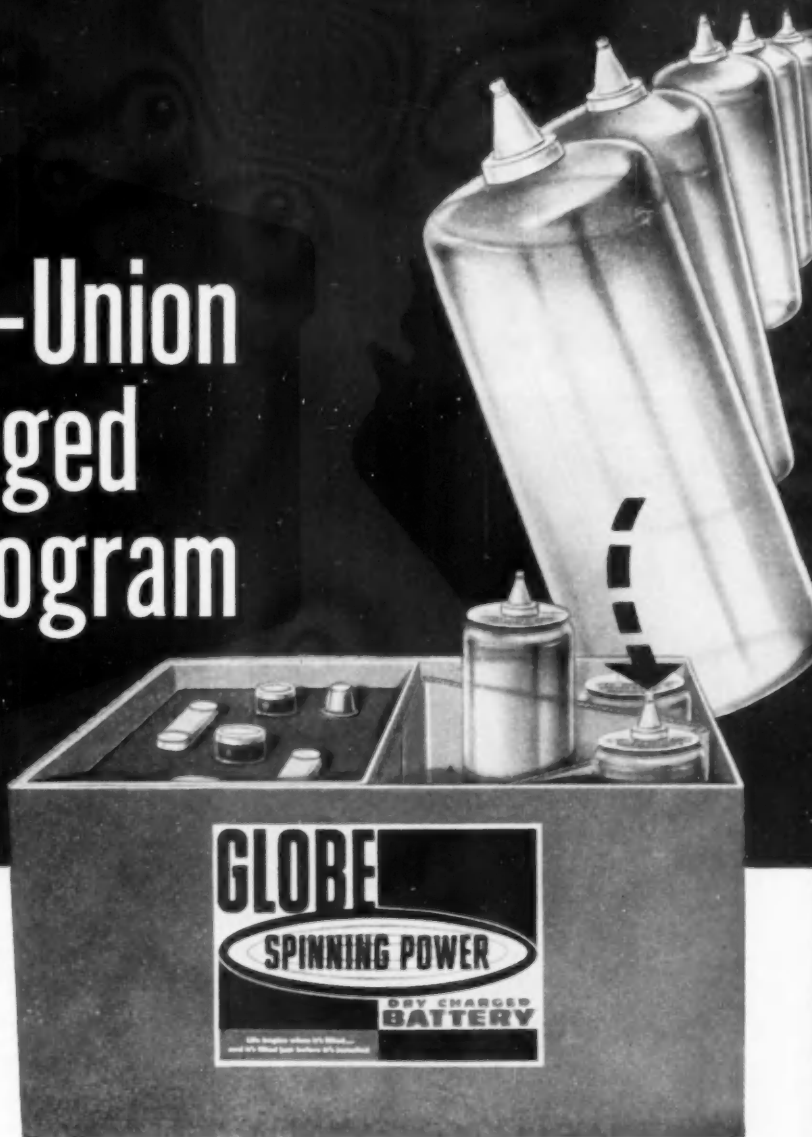
9520 East CeeBee Drive, Downey, California



New Globe-Union dry-charged battery program

Gives you

- lower shipping cost
- easier handling
- handier stocking
- safer activation
- faster delivery



All this in a self-selling package!

New ease of handling and stocking — that's what Globe dry-charged battery program extras offer you! These investment-protecting benefits are wrapped up in a single eye-catching, self-selling display carton that stacks easily... provides fast, accurate, on-the-

spot inventory control... makes it easy to set up traffic-stopping floor or window displays. Each carton is complete in itself — contains battery... light-weight, disposable electrolyte bottles... and a safety-insuring handling sleeve.



Fast, low cost delivery! Thirteen* of 16 Globe battery plants are equipped for dry-charged battery production... are strategically located so that fast, low-cost shipments can be provided for all markets.

Battery plants at: *HOUSTON, TEXAS *MEMPHIS, TENN. *ATLANTA, GA. *DALLAS, TEXAS *MEDFORD, MASS. *MILWAUKEE, WIS. *MINERAL RIDGE, OHIO *PHILADELPHIA, PA. *EMPORIA, KANSAS *BEIDSVILLE, N. C. *SAN JOSE, CALIF. *LOUISVILLE, KY. *HASTINGS-ON-HUDSON, N. Y. — LOS ANGELES, CALIF. — OREGON CITY, OREGON — AJAX, (ONTARIO) CANADA



GLOBE-UNION Inc.

MILWAUKEE 1, WISCONSIN

If it's Petroleum-powered there's a GLOBE-BUILT BATTERY right from the start!

Any way you look at it **a Blackhawk Jack**



LIFE - SAVER PUMP

Pump cups operate within a smooth micro-finish steel housing (NOT in a hole bored in base casting). Low-cost pump assembly is easily replaced in the field with an ordinary wrench. Years are thus added to jack's life.

RAMROD RIGIDITY

Malleable iron top cap is another big reason why Blackhawk jacks take almost incredible abuse. Has super strength to withstand off-center loads — gives extra rigidity to the entire jack and helps prevent leakage.

BLACKHAWK®

Blackhawk Mfg. Co., Dept. No. J-11106, Milwaukee 46, Wisconsin

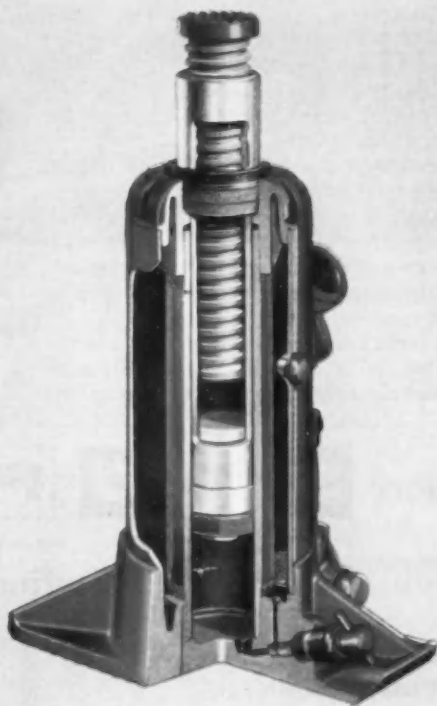
WORLD'S LARGEST MANUFACTURER OF

... here's why is your best bet!



SHARP AS A HOUND'S TOOTH

Note special cross-milled, heat-treated saddle on the Blackhawk jack — for safe, sure grip on greasy, icy axles. Teeth stay sharp as a hound's tooth — never wear smooth like ordinary saddles.



NO ORPHAN PARTS

On all 1½ to 20-ton hand jack models, there's 68% working parts interchangeability — to speed servicing, cut maintenance costs. A few dollars of parts inventory easily and quickly takes care of all common repairs.

IT ALL ADDS UP TO "LOW-COST LIFE"

And remember — Blackhawk design means the right jack for every highway and shop jacking job. It means brute stamina to handle bigger and bigger loads, greater lifting spans, broader range of applications.

See why so many fleets prefer Blackhawk jacks! Right on your desk you can have an actual demonstra-

tion of Blackhawk's 68% parts interchangeability and why a Blackhawk jack outlives the truck it lifts — outperforms any other jack for efficiency and low-cost, trouble-free maintenance. Ask your Blackhawk jobber for this "Jack-in-a-Pak" demonstration — proof that it will pay you to standardize on Blackhawk jacks!

HYDRAULIC TOOLS

Hydraulic
Hand Jacks



Porto-Power



Hydraulic
Service Jacks



One-End
Lifts



Transmission
Jacks



CCJ

AT YOUR SERVICE

Continued from Page 20

tube in a mounted tire also since the plastic makes an air tight seal between the tire and the rim.

Valves Need Adjustment

LESS THAN five per cent of all trucks now in service are being operated with correct valve adjustment or even with settings within .002 in. of factory-specified clearance, according to a two-year study recently completed by P&G Mfg. Co., Portland, Ore.

Here's how the report points up the need for proper valve adjustment:

"Valve clearance directly affects valve timing, and engineers agree that correct valve timing is the life pulse for smooth, efficient power output. As an example, just .002-in. excessive valve clearance on many engines will delay the opening and closing of the valves an equivalent of 7 deg of crankshaft rotation.

"Such a serious lag in valve timing throws the whole engine out of balance. The fuel-air mixture is late entering the cylinder during the

intake stroke. The valves haven't fully closed before the compression stroke. And the premature closing of the exhaust valves prevents all the waste gases from being expelled. In addition, the valves themselves become damaged. Cam shaft lobes are designed to slow the speed of the valve just before it closes. But with excessive valve clearance the valves close early, when the tappet is still on the steep slope of the cam lobe. The greatly increased impact upon closing causes checking of the valve face, and ultimate cracking and breaking.

"Too little valve clearance is equally damaging. Engine breathing is again unbalanced; the valves open too early and close too late. Hot combustion gases rushing past these valves cause overheating, because the valves seat so briefly that the normal heat transfer into the engine block cannot take place. The result is burned valves."

Chevrolet Distributor Dirt

SOME CASES of distributor trouble due to dirt in the distributor cap have been encountered on 1956 Chevrolet heavy-duty trucks equipped with external adjustment type distributor. Most likely entry for the dirt, according to Chevrolet tests, is through distributor adjustment opening in cap when the cover is left open or only partially closed. Be sure your service mechanics fully close the access door after any adjustment.

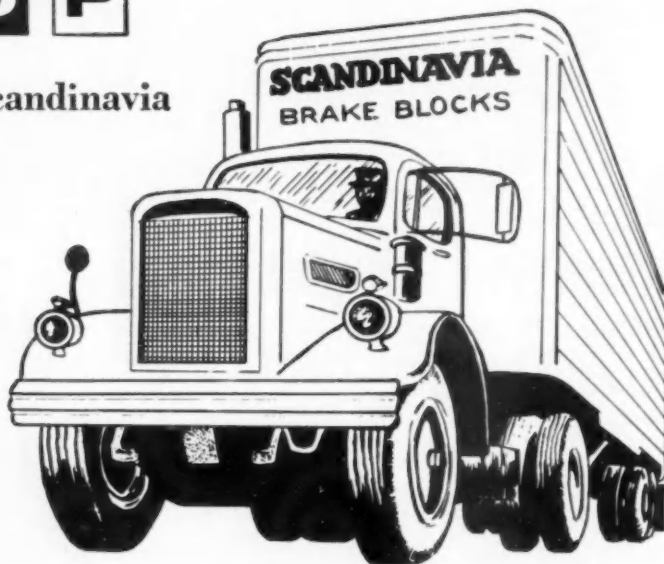
There's more

STOP

when you

GO Scandinavia

There are good reasons for it—the acceptance of SCANDINAVIA Combination ZT Molded Brake Blocks by America's larger fleet operators. In many instances, reduction in brake drum heat checking is the big appeal. Others report more positive braking when the switch was made to SCANDINAVIA ZT. Still others like the uninterrupted on-the-road service and less "down time"—which add up to lower cost-per-mile brake maintenance. On your next reline job, why don't you test-install SCANDINAVIA ZT.

BRAKE
BLOCKS

• SCANDINAVIA •

BRAKE
LININGS

DIVISION OF SCANDINAVIA BELTING COMPANY, 744 BROAD ST. (P.O. BOX 464) NEWARK 1, N. J.
WAREHOUSE: 250 CENTRAL AVE., NEWARK 1, N. J. • PLANT: CHARLOTTE 1, N. C.
BRANCHES IN CAMBRIDGE, MASS. AND CLEVELAND, OHIO



Mason And Dixon Lines test ...then buy 225 Fuller ROADRANGERS®

"Drivers' reaction was excellent. We had not used Fuller Transmissions previously except in test units." And, after a thorough period of operation, The Mason And Dixon Lines, Inc., of Kingsport, Tennessee, specified Fuller R-46 (8-speed) semi-automatic ROADRANGER Transmissions in its new fleet of 225 White 9000 Series Tractors equipped with Cummins 175 hp JT-6-B diesel engines.

The Mason And Dixon Lines — "Now Joining The North And South" — operate one of the most modern fleets in the nation, covering over

6000 miles of franchised routes from Atlanta to New York.

Test units, equipped with Fuller R-46 ROADRANGER Transmissions, proved:

- Easier, quicker shifts — 8 forward speeds with short 38% steps between ratios
- All 8 speeds controlled by one lever
- No gear splitting — 8 selective gear ratios are evenly and progressively spaced
- Higher average road speeds — engines operate in peak hp range with greater fuel economy

- Less driver fatigue — 1/3 less shifting
- Range shifts pre-selected — automatic and synchronized
- Compact space-and-weight saving economies — the most compact 8-speed transmission available
- Transmission weight under the cab — permitting more cargo to be carried on the payload axle

• • •

Get full facts on ROADRANGER from your truck manufacturer or truck dealer, now!



FULLER MANUFACTURING COMPANY
Transmission Division, Kalamazoo, Michigan

Unit Drop Forge Division, Milwaukee 1, Wisconsin • Shuler Axle Company, Louisville, Kentucky (Subsidiary) • Sales & Service, All Products, Western District Branch, Oakland 6, California and Southwest District Office, Tulsa 3, Oklahoma.

FOR POWER... FOR PROFIT



To make a profit you've got to keep your trucks on the road and out of the repair shop. That calls for dependable Chrome Control Leak-Proof piston rings and McQuay-Norris parts. They're built to last!



CHROME CONTROL LEAK-PROOF

PISTON RINGS

This set will outperform any other piston ring set in the "hard-to-hold" jobs regardless of kind, design or price.



McQUAY-NORRIS MANUFACTURING COMPANY

• ST. LOUIS — TORONTO

Phony Fables about Oil Seals



Fable No. 4

Old oil seals never die!

False! Seals wear out, just like other parts. At a certain wear point, the seal just ceases to seal—and you have real trouble! You can't tell—even laboratory equipment has difficulty determining when a seal has passed this "point of no return".

Best bet is to follow the recommendation of truck manufacturers, bearing and brake lining firms, oil companies and leading mechanics—install new seals every time old seals are removed. To be doubly sure, install perfect-fit Nationals—the familiar seal in the bright red box. National is America's largest selling replacement seal—made by a leader in original equipment oil seals.

Call your jobber this week about a National Oil Seal service stock.

3704



Support this
industry-wide
program



NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, California
PLANTS: Redwood City, California and Van Wert, Ohio

Stock tailored for your fleet

Your automotive parts jobber will gladly analyze your fleet's oil seal requirements, and suggest a stock of National Oil Seals that exactly meets your needs. No dead-wood, no obsolete numbers. As your equipment changes, the stock can be altered accordingly. Jobber maintains the stock; no extra work for you. You always have seals when needed; no extra down time getting parts.



NATIONAL

OIL & GREASE SEALS

O-RINGS

SHIMS

Approved original equipment for all cars, trucks,
buses and tractors.

Maintenance Problems Licked

at new low cost



**the most economical
unit on the market!**

low, low initial cost . . .
only \$359 f.o.b. factory

low, low operating cost . . .
uses half as much fuel.

Outperforms big, costly
machines where a
handy steam cleaner is
needed. Pressure
impact of hot cleaning
solution penetrates
smallest cracks and
crevices. Permanent
mount or
(optional at
small additional
cost) portable
on rubber
tire wheels.

*cleans, sterilizes, disinfects, heats,
sprays . . . practically anything!*

Vapor Heating Corporation

80 East Jackson Boulevard, Chicago 4, Illinois, Dept. J-8

Send me bulletin No. 442 containing full details about
the new Vapor "45" Steam Cleaner.

Name _____ Position _____

Company _____

Address _____

City _____ State _____

DATES and DOINGS

OCTOBER

- 17-19—American Society of Body Engineers, Technical Convention, Rackham Memorial Bldg., Detroit, Mich.
- 17-23—Regular Common Carrier Conference, American Trucking Assns., Waldorf-Astoria Hotel, New York, N. Y.
- 18-21—National Truck Roadshow, American Trucking Assns., Belmont Plaza Hotel and Kingsbridge Armory, New York, N. Y.
- 21-24—Executive Committee, American Trucking Assns., Waldorf-Astoria Hotel, New York, N. Y.
- 21-26—American Trucking Assns., Annual Convention, Waldorf-Astoria Hotel, New York, N. Y.
- 22-23—Virginia Passenger Bus Assn., Annual Convention, Patrick Henry Hotel, Roanoke, Va.
- 22-24—National Lubricating Grease Institute, Annual Meeting, Edgewater Beach Hotel, Chicago, Ill.
- 22-26—National Safety Council, Annual Safety Congress and Exposition, La Salle Hotel (Commercial Vehicle and Transit Safety sessions), Chicago, Ill.
- 22-27—National Transportation Week.
- 29-31—Truck Body and Equipment Assn., Annual Convention and Exhibit, Sherman Hotel, Chicago, Ill.
- 29-Nov. 3—Dairy Industries Exposition (including truck bodies), Convention Hall, Atlantic City, N. J.

NOVEMBER

- 1-2—Society of Automotive Engineers, National Diesel Engine Meeting, Drake Hotel, Chicago, Ill.
- 2-3—West Virginia Motor Truck Assn., Annual Meeting, Daniel Boone Hotel, Charleston, W. Va.
- 8-9—Society of Automotive Engineers, National Fuels and Lubricants Meeting, Mayo Hotel, Tulsa, Okla.
- 16-17—International Autorama, Commercial Museum, Philadelphia, Pa.
- 12-15—International Soft Drink Industry Exposition (including exhibit of trucks, trailers and truck bodies), Public Auditorium, Cleveland, Ohio.
- 13-15—Cooperative Safety Patrols of Ohio and Pennsylvania Motor Truck Assns., Annual Joint Convention, White Swan Hotel, Uniontown, Pa.
- 15—Maine Truck Owners Assn., Fall Get-Together, Lafayette Hotel, Portland, Me.
- 15-16—Arkansas Bus and Truck Assn., Annual Convention, Marion Hotel, Little Rock, Ark.
- 15-16—Associated Motor Carriers of Oklahoma, Annual Convention, Mayo Hotel, Tulsa, Okla.
- 15-17—Oregon Trucking Assn., Annual Meeting, Multnomah Hotel, Portland, Ore.
- 18-20—Florida Trucking Assn., Annual Convention, Fountainbleau Hotel, Miami Beach, Fla.

DECEMBER

- 2-3—Missouri Bus and Truck Assn., Annual Meeting, Hotel Governor, Jefferson City, Mo.
- 3-8—Traffic Improvement Week (American Transit Assn., sponsor).
- 4-6—National Freight Claim Committee, American Trucking Assns., Fall Meeting, Hotel Balmoral, Miami Beach, Fla.
- 7—Delaware Motor Truck Assn., Annual Meeting, Hotel duPont, Wilmington, Del.
- 8-16—National Automobile Show (including truck makers), The Coliseum, New York, N. Y.

JANUARY

- 14-18—Society of Automotive Engineers, Annual Meeting, Sheraton-Cadillac and Statler Hotels, Detroit, Mich.
- 23-24—Executive Committee, American Trucking Assns., ATA Bldg., Washington, D. C.
- 31-Feb. 1—Private Truck Council of America, Annual Convention, St. Louis, Mo.

B.F. Goodrich



Traction Express tires roll 160,000 miles before recaps for Tennessee trucker

WILSON TRUCK COMPANY, INC. of Nashville operates 200 tractors, 350 trailers and 60 pick-up trucks that haul general freight throughout the southeast and middle west. In an effort to obtain maximum highway mileage, the company tested various tires, including the B. F. Goodrich Traction Express.

On the basis of these test results

they selected Traction Express tires, report they get as many as 160,000 miles *before* recaps from them! The Traction Express tread is up to 46% thicker than that of a regular tire. Curved cleats grip the pavement, give greater traction in forward or reverse.

And under the thick tread is the B. F. Goodrich *all-nylon* cord body. Nylon withstands double the impact

of ordinary cord materials, resists heat blowouts and flex breaks. No wonder the *all-nylon* Traction Express body outwears even the extra-thick tread, *can still be recapped over and over!*

If you want maximum highway mileage at minimum cost per mile, see the Traction Express at your B. F. Goodrich retailer's. Or write B. F. Goodrich Tire Co., A Division of The B. F. Goodrich Company, Akron 18, Ohio.

Specify B. F. Goodrich tires when ordering new trucks or trailers



CASCADE TRANSPORT operates out of Wenatchee, Wash., hauling fuel in the northcentral part of the state. Trucks roll 24 hours a day, 7 days a week. The company reports *all-nylon*



Traction Express tires roll 155,000 miles before recaps, then with 2 to 4 'caps another 100,000 miles. No wonder truckers call this BFG tire "the 100,000-mile tire".



Your B. F. Goodrich retailer is listed under Tires in the Yellow Pages of your phone book

The Engineer's Field Report

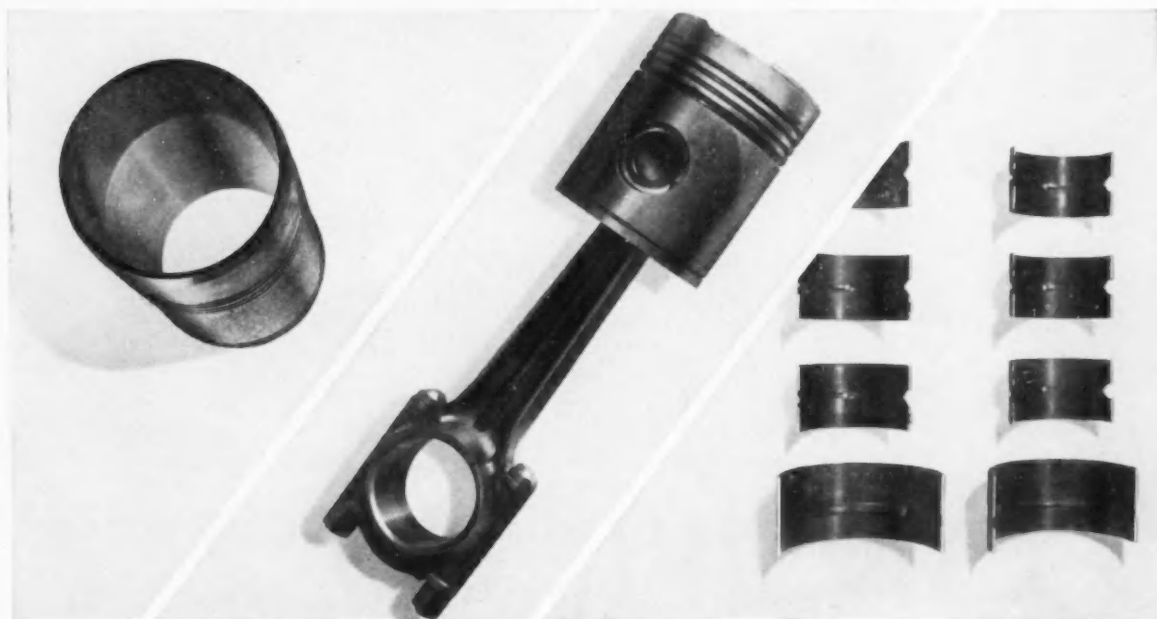
CASE HISTORY

RPM DeLo Oils

LUBRICANT

Progressive Transportation Co.,
FIRM Compton, California

RPM DELO holds piston wear to .001" after 201,253 miles of on-and-off highway hauling



LUBRICATED WITH RPM DELO Oil, these engine parts were pulled from a Cummins HR diesel after 201,253 miles. A portion of this mileage was put on during four months of rugged service spotting loads of heavy pipe in the Arizona desert. When the engine was taken down, after two years of this on- and off-highway hauling, Progressive Transportation Co. found RPM DELO Oil had kept lacquer, gum, sludge, and deposits from forming...rod bearing wear varied between .0005 and .001 inch and pistons showed maximum wear of only .001". No wear at all evident on

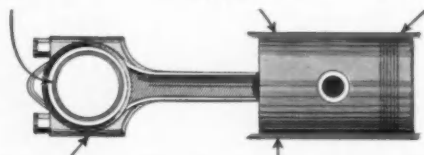
main bearings. Progressive Transportation uses RPM DELO Oils in all its large fleet of tractors—some of which have traveled well over 200,000 miles without overhaul.

Why RPM DELO Oils prolong engine life

Special compounds stop corrosion

Anti-oxidant resists lacquer formation

Detergent keeps all parts clean



Metal-adhesion qualities keep oil on parts in running or idle engines—inhibitor resists foaming



For More Information... about this or other petroleum products of any kind, or the name of your nearest distributor, write or call any of the companies below.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20 • STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey • THE CALIFORNIA COMPANY, Denver 1, Colorado

"TALK ABOUT REAL COMFORT ... I RIDE A BOSTROM 80 TRUCK SEAT"

James A. Richardson and other drivers for Yellow Transit Freight Lines, Inc., Kansas City, are enjoying passenger car riding comfort in 210 new Kenworth tractors. Every single one is equipped with a Bostrom "Level Ride 80" truck seat.

Yellow Transit feels strongly that its drivers are entitled to every possible aid to safety and health. It backs up this feeling by providing equipment like the "Bostrom 80" truck seat, to keep drivers alert, fresh and rested even after a full day's run. Naturally, this policy pays off for Yellow Transit in the form of higher morale, greater safety, lower operation costs.



Specify "Bostrom 80" as Original Equipment and Replacement



Visit Us At The ATA Convention Oct. 21-26
Waldorf-Astoria, New York

Bostrom Manufacturing Co., 150 W. Oregon St.
Milwaukee 4, Wisconsin



◀ A Yellow Transit driver adjusts the "Bostrom 80" truck seat to suit his own weight before a day's run. Five easy adjustments enable him to ride in perfect comfort over all types of routes, alert at all times to every driving condition.

The same driver parks his tractor at the end of a 300-mile run from Detroit to Indianapolis. He's fresh and free from driver fatigue as a result of being "floated" on Bostrom's torsion spring suspension. He was able to control his equipment better—therefore drove ▼ in greater safety.



DESIGNED
FOR
DUTY



PERFECT CIRCLE
chrome piston rings

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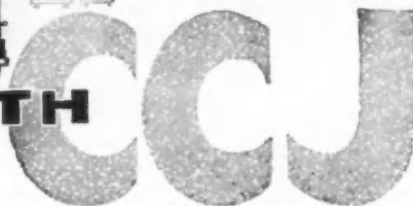
Mack

ENGINES

Mack...one of the leading engine manufacturers using Perfect Circle chrome rings for both original equipment and service requirements.



UP FRONT WITH



OCTOBER 1956 FLEET HIGHLIGHTS AS REPORTED BY COMMERCIAL CAR JOURNAL

MR. EXECUTIVE, Dept. of Commerce will ask Congress for \$1.2 million to take a census of transportation in 1958. Briefly, plan is to make a 5-point study to include: (1) asking truck operators how many vehicles they have (by weight, body type, age, annual mileage and use), how far they go, what they carry plus "other relevant factors," (2) asking bus operators how many vehicles they have (by capacity, annual mileage, type of service), how many passengers they carry, who they employ and how much they pay, what their revenues are, (3) asking shippers what, where and by what type of carrier they ship, (4) asking travelers where, why and how they travel, and (5) asking air cargo carriers what, where and how much they carry. Transportation census was originally authorized in 1948 but never has gotten beyond the research and pilot study stage. Congress twice has turned down Census Bureau requests for the necessary appropriation.

AASHO ROAD TEST will not answer fully the question of maximum desirable vehicle sizes and weights, says C. D. Curtiss, Bureau of Public Roads Commissioner. First it is necessary to determine what road construction is needed to support various sizes and weights. This, says Curtiss, "... demands far more comprehensive information than we now have..." Next is to discover operating costs for different size and weight vehicles and relate them to road costs "... if we are to provide the lowest total cost, road and vehicle both included." Latest timetable for the AASHO Road Test calls for completion of the test road in Ottawa, Ill., by Aug. 1, 1957, with test traffic to start a month and a half later.

PRICE INCREASES are expected as 1957 model trucks are announced beginning late this month. International Harvester already has upped prices 5 to 6 per cent, and White says there is no question that its prices will be boosted sometime this year. Prediction for replacement parts is that they will go up as high as 7 to 9 per cent starting this month. When added to tire price boosts announced in August (Sept., page 34) and probable boosts in federal and state highway user taxes early next year (Aug., page 70), these increases total-up to an "across-the-board" hike in fleet operating costs. Incidentally at its annual convention last month, American Automobile Assn. members were urged to push for higher truck taxes. AAA President A. J. Sordoni said: "The truckers should be compelled to pay at least a major portion of the added highway costs which their loads make necessary."

1956 VEHICLE registrations are expected to total 65,275,000 by the end of this year, says the Bureau of Public Roads—54,300,000 automobiles, 10,975,000 trucks and buses. The estimated truck and bus registration is 3.7 per cent higher than the 10,587,161 figure registered in 1955. Top state remains California with an estimated 952,000 trucks and buses for 1956.

DETROIT DISPATCH

FUEL INJECTION FOR trucks may not be more than a year or two away. It is a hot item now with passenger car engineers, and one volume car producer will offer it as an option in 1957. Several suppliers—American-Bosch, Borg-Warner, Bendix, Thompson, Holley—are working to develop an efficient system at a reasonable cost. (For description of one developmental model, see page 86, this issue.)

AIR CONDITIONERS FOR truck cabs for field installation have been announced by International Harvester. They are designed for all models in the S100 through S130 series and in the R185 through R210 series. They were made for International by Eaton Mfg.

NEW TRUCK ANNOUNCEMENTS TO watch for this month include Chevrolet (Oct. 14), Studebaker (Oct. 28) and Dodge (Nov. 1).

AUTO CARRIERS ARE doing some thinking about all-aluminum trailers. Biggest advantage is reduction of about 1000 lb in deadweight. At least one operator is considering having a test unit made.

40-FT TRAILERS ARE becoming more popular say trailer makers. Trend results from liberalized length laws, improved reciprocity agreements. Possibility is that added length will make

compliance with bridge formula axle spacing easier.

DIVCO HAS acquired the assets of Wayne Works, Inc., plus its two subsidiaries, Meteor Motor Car and A. J. Miller. The move puts Divco into the school bus, ambulance and funeral car business.

MACK PLANS production of intercity busses using the facilities of C. D. Beck & Co. which it acquired last month. Beck will be operated as a division of Mack, gives Mack a full line including school busses, transit coaches and intercity cruisers.

GREYHOUND HAS given Mack an order for 34 C-59 transit-type buses, 30 for Pacific Greyhound and four for Richmond Greyhound. This is business that "would, in the past, have gone to General Motors" says Greyhound President A. S. Genet. Greyhound is still working on but has not yet filed its Scenicruiser damage suit against GM.

FOUR-HEADLIGHT SYSTEM FOR passenger cars has been OK'd by the American Assn. of Motor Vehicle Administrators. The AAMVA committee that studied the problem said the present four-light system does not necessarily represent the best. In suggesting further development to the manufacturers, it said, "Of particular benefit

WASHINGTON WATCH

TAX REGULATIONS FOR complying with the federal use tax on trucks over 26,000 lb GVW still had not been released at press time. Report was they would be out late in September, giving fleet operators 30 days from that date to file any protest with the Internal Revenue Service. Allowing the IRS 30 days to consider any protest, it could be Dec. 1 before they are in final form. Point to remember: Regardless of when the regs are complete, the tax is retroactive to July 1, 1956.

ACCIDENTS REPORTED TO the Interstate Commerce Commission by truck and bus fleet operators for the first six

months this year were 6 per cent above the first half of 1955. Fatal accidents were down 8 per cent as compared to 1955, but non-fatal injury accidents were up 6 per cent and property damage only accidents were up 7 per cent. Fatalities resulting from truck and bus accidents dropped 12 per cent as compared to the six-month 10 per cent increase for all vehicles as estimated by the National Safety Council. (For details, see page 88, this issue.)

TRAILERSHIP OPERATIONS ARE more likely to be stymied by lack of suitable port facilities, efficient trailers and loading facilities than by the trailerships

would be a worthwhile reduction in the proportion of low beam light which strikes the eyes of approaching drivers." This is the same concern as expressed by American Trucking Assns. Engineering and Safety departments in opposing the four-light system (Sept., page 35).

FRUEHAUF HAS violated federal anti-merger laws, said the Federal Trade Commission in a recently filed formal complaint. Fruehauf promptly denied the charges, will present its formal answer at hearings in Detroit scheduled for Oct. 30. (See page 156, this issue for details.)

FORD HAS joined the Automobile Manufacturers Assn. after many years of informal cooperation in AMA projects.

SYNTHETIC RUBBER MADE news in two places last month. First was announcement by Firestone of Army Ordnance tests of synthetic truck tires. "They met or exceeded all military requirements" says Firestone. The other was development by Esso of all butyl rubber tires. Advantages cited are better air holding properties, greater resistance to weathering, quicker stopping. Esso will not make the tires but will sell the butyl to tire makers. First models will be for passenger cars and off-highway equipment with development continuing on truck tires.

themselves, said Federal Maritime Administrator Clarence Morse at last month's annual convention of the American Assn. of Port Authorities.

CONSOLIDATED FREIGHTWAYS WILL begin hearings before the Interstate Commerce Commission on March 4, 1957, on its proposal to acquire six additional motor carriers (Sept., page 232). As a result of a pre-hearing before the ICC last month, the following schedule was announced; statements in favor of the applications must be in by Nov. 1, protestants have until Jan. 1, 1957, all other material submitted by Feb. 15, 1957.

TRUCK TONNAGE

INTERCITY GENERAL

FREIGHT volume transported by truck in July was up 11.2 per cent over July 1955 says ATA's Research Dept. For the second quarter, tonnage was 5.6 per cent over the same period last year. Truckloading index for the second quarter stood at 184, a new high. (See page 88, this issue for second quarter tonnage by regions and commodities.) So far, 1956 looks like a record year with a 7.8 per cent increase in tonnage for the first seven months as compared to the first seven months of 1955.

Month	% Change from Previous Month	% Change from a Year Ago
July, 1956.....	.....	+11.2
2nd Quarter '56.....	.....	+ 5.6
June, 1956.....	- 0.9	+ 5.8
May, 1956.....	+ 5.5	+ 6.4
April, 1956.....	- 3.2	+ 0.9
1st Quarter '56.....	.....	+ 7.9
March, 1956.....	+ 6.8	+ 1.4
February, 1956.....	- 1.0	+12.7
January, 1956.....	+ 3.4	+12.9
4th Quarter '55.....	.....	+16.1
December, 1955.....	- 6.3	+11.9
November, 1955.....	- 0.9	+17.0
October, 1955.....	+ 1.5	+19.2
3rd Quarter '55.....	.....	+15.4
September, 1955.....	+ 1.2	+17.0
August, 1955.....	+21.3	+20.9

TRUCK AND BUS PRODUCTION

Make	For Weeks Ending				Total Jan. 1 to Sept. 15, '56
	Sept. 15	Sept. 8	Sept. 1	Aug. 25	
Available.....	6	6	7	9	278
Chevrolet.....	5,949	5,288	6,501	6,448	284,107
G. M. C.....	1,935	1,491	1,385	1,672	88,113
Diamond T.....	117	80	99	109	3,965
Divco.....	60	48	56	60	2,737
Dodge and Fargo.....	891	0	2,011	1,802	63,291
Ford.....	6,302	3,490	3,448	3,256	218,091
International.....	2,857	1,991	2,522	2,402	98,182
Mack.....	326	221	397	374	13,143
Marmen-Herrington.....	30	8	28	30	536
Reo.....	71	52	71	72	2,764
Studebaker.....	0	0	288	524	11,402
White.....	355	287	344	358	12,916
Willie.....	1,377	1,027	1,452	1,399	42,346
Other Trucks.....	94	90	116	132	5,118
Total—Trucks.....	20,070	14,077	16,725	16,647	806,067
Buses.....	64	32	54	72	3,087
Total—Trucks and Buses.....	20,134	14,109	16,779	16,719	809,794

Source: Automobile Manufacturers Assn.

IN THIS ISSUE

There's something for everybody in PIE's new Los Angeles **SHOP**, the nation's biggest (page 66). Yellow Transit finds its new shop spawns better methods (page 78).

Efficient operation starts with **DAILY BUS SERVICE** say Madison Bus and Portsmouth Transit (page 70.)

Tough five-part **DRIVER SELECTION** program cuts accidents for Willet in Chicago (page 76).

Is there a **MECHANIC SHORTAGE?** You bet there is, and it will get worse unless something is done about it (page 80).

The Road Ahead



TRUCKERS ARE now having "their day in court" in Philadelphia. Their \$250 million anti-trust damage suit against 24 railroads, 6 railroad officials, and Eastern Railroad Presidents Conference and the public relations firm of Carl Byoir & Associates, Inc., opened in the U. S. District Court the first of this month. Forty truck fleets and the Pennsylvania Motor Truck Assn. have accused the railroads of conspiracy to monopolize interstate freight traffic through methods such as bribery of officials, use of the mails to defraud and setting-up of false front organizations. Being tried at the same time is a \$120 million counter claim filed by the railroads against the truckers.

BUS OF THE FUTURE AS unveiled by Mack at last month's American Transit Assn. convention has rocked the transit industry out of its doldrums. Whether this particular dream model (page 130, this issue) goes into production is beside the point. What counts is the fact that at least one maker has stirred-up some radical thinking for transit's part on the road ahead. Elected president of ATA was Paul O. Dittmar, president of South Suburban Safeway Lines. (See page 70, this issue, for a report on the convention's workshop session.)

INTERCITY BUS TRANSPORT WILL be a billion dollar a year business by 1966. This is the forecast made by Greyhound Corp. President Arthur Genet at the National Assn. of Motorbus Operators annual convention held last month in Chicago. By that time, he added, the nation's railroads "will have virtually abandoned the business of carrying passengers."

TRUCK EXHIBIT AT the Mid-America Jubilee in St. Louis last month was an excellent example of what can be done to promote the trucking industry during National Transportation Week (page 5, this issue). Sponsored by about 100 St. Louis fleets acting through their local Motor Carrier Club and Motor Carrier Council, it told the trucking story well.

DRIVER SUPERVISION AND getting safety program support will be viewed from all angles for truck fleet safety men attending the National Safety Congress. It is scheduled for Oct. 21-27 in Chicago with both Commercial Vehicle and Transit sessions to be held in the LaSalle Hotel.

PRODUCTION TOTALS FOR July were somewhat behind July 1955, but 7-month figures show 1956 ahead of last year in almost all classifications as shown below:

In thousands of units, except bus sales are in actual numbers	New Truck Registrations		Truck Factory Sales—Domestic		Truck Trailer Shipments		Bus Factory Sales—Domestic		Truck and Bus Tires					
									Replacement Shipments		Original Equip. Shipments		End of July Inventory	
	July	7 Months	July	7 Months	July	7 Months	July	7 Months	July	7 Months				
1956	78.4	533.4	63.1	551.1	5.0	42.1	220	2276	837	5205	362	2892	3306	
1955	84.4	518.5	93.7	629.2	5.9	41.2	256	1860	931	5184	429	2899	2485	

Du Pont "DULUX" enamel gives Pet Milk trucks

a rich-as-cream look that lasts



Mr. J. H. Wright, Assistant Director of Research, knows from his records that "Dulux" stands up well on their delivery routes and is easily applied by painters in their own maintenance shop.



Mr. A. B. Becker, Director of Transportation, sees to it that all 152 Pet Milk trucks and 141 tractor-trailer combinations look as clean and inviting as their cargo. Topcoats are "Dulux" Cream and Red.

Bright, clean-looking Pet Milk trucks say a lot to customers about the quality of their famous cargo. And the way "Dulux" Enamel keeps its Grade "A" appearance on this fleet through 5 million miles a year says a lot about durability! Pet Milk first tried "Dulux" 11 years ago... now use it with Du Pont "Preparakote" Primer-Surfacer for their entire fleet. Their reasons?

First—they like the long service life of "Dulux." It is highly weather-resistant, so it keeps its bright colors and comes sparkling clean at every washdown. And "Dulux" Enamel resists cracking or chipping, even under hard road service.

Second—Pet Milk likes "Dulux" for its "ease of application by our own personnel." That's because it flows out smoothly, covers fast, and dries dust-free in 20 to 40 minutes. Jobs roll out of the shop right on schedule.

So for a finish that reflects the high quality of your product and lowers your maintenance costs, take a tip from Pet Milk. Keep your fleet looking its best with Du Pont "Dulux" Enamel. E. I. du Pont de Nemours & Co. (Inc.), Refinish Sales, Wilmington 98, Delaware.



Fleet tests prove new Champions can deliver

3 times longer spark plug life!

It's a fact—proved in trucks of heavy-hauling fleets the country over:

The all-new alloy of Champion's Powerfire electrode gives thousands of miles of extra service! In one truck tested, new Champions with Powerfire went 12,797 miles for a 420% increase of former mileage. In another, they operated for 12,807 miles for a 320% increase of former mileage. Some trucks got less mileage, some more—but in all the trucks tested, an average increase of more than 300% of former mileage was recorded!

The new Powerfire electrode is designed to withstand combustion chamber temperatures up to 200 degrees higher than ordinary electrodes. It is today's best for modern high-compression truck engines with their vastly increased combustion temperatures—today's best for all engines in sustained, high rpm

heavy-hauling operation. It cuts maintenance time and costs—ups power and performance, for faster, more dependable, more profitable truck operation.

Try a test set the next time you replace and let your own records show you how much better these new 5-rib Champions are—how much longer they last, how much money they save.

CHAMPION SPARK PLUG COMPANY
TOLEDO 1, OHIO



Here's a typical Fleet experience

Mr. Charles L. Pulford, Maintenance Supervisor, J.E. Faltin Motor Transportation, Inc., Manchester, N. H., declares: "In our fleet of Macks, Whites, GMC's and Diamond T's, new Champions with Powerfire electrode give us 14,000 to 16,000 miles, in contrast with 3,000 to 4,000 miles formerly obtained with ordinary electrode plugs. We use Champions in every one of our 130 trucks."

Now...moisture-free air for your air brake systems



New Wagner moisture ejection valve keeps reservoirs clean and dry—*automatically!*

If you've ever had moisture accumulation problems in the brake systems of your fleet, you'll be interested in this fully automatic moisture ejection valve.

Operating at 15 to 20 p.s.i. pressure, it ejects moisture with each average brake application.

It mounts in any convenient location... no heating element is necessary as the valve cannot freeze in open (exhaust) position. It connects to the air system by two air lines—one leading from the bottom of the air reservoir and the other from a brake application line.

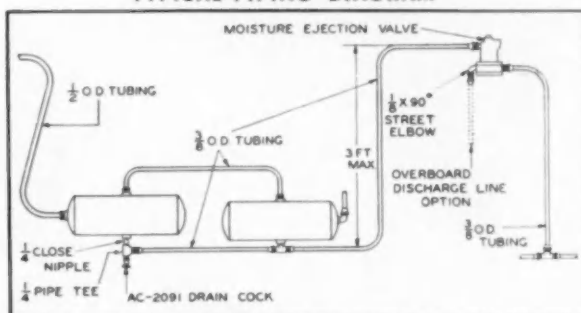
Expulsions occur without a noticeable drop in tank gauge pressure.

HIGH CAPACITY—valve can eject up to 4 fluid ounces at a time... even expels foreign particles which may have settled to the bottom of the tank.

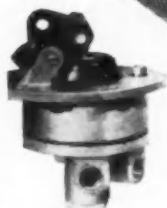
CORROSION RESISTANT metal parts. Diaphragms are a combination of neoprene and nylon cord for long life and high resistance to oil.

OPEN TO ATMOSPHERE—valve fluid cavities are open to atmosphere... it is impossible to trap moisture within the unit. *Cannot balance in open position...* and "dump" reservoir pressure.

TYPICAL PIPING DIAGRAM



Wagner Air Brake Application Valves for Straight Air Systems



Actuating Arm Type



Treadle Type



Basic Type

These valves provide complete braking control for safe, sure stops. Each valve is completely interchangeable with other makes of valves. The basic valve can be installed by simply transferring the actuating mechanism to the Wagner valve. The treadle valve can be adjusted to angle properly with the contour of the floor board and also offers external adjustment of exhaust valve clearance.

For complete information on Wagner Air Brake Systems, write today for Catalog KU-201A.

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Maintenance Records got you going Round in Circles?



**Socony Mobil's new P.M. System
cuts paper work—
helps keep your units humming!**

Simple . . . accurate . . . easy-to-follow — that's Socony Mobil's new Preventive Maintenance System! It cuts paper work to the bone...practically eliminates breakdowns due to improper lubrication maintenance... helps reduce maintenance costs.

You work with only three things—work sheet, record folder, control blackboard. We supply record folders

and work sheets...show you how to use them, help set up the entire system.

We also analyze your fleet conditions, help you set up lubrication schedules and inspection periods, provide skilled lubrication engineers when necessary, report on benefits achieved.

* * *

Call your Socony Mobil representative for complete details.

CORRECT LUBRICATION FOR FLEET OPERATORS

THE FLYING RED HORSE COMPANIES: SOCONY MOBIL OIL CO., INC.
MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP.



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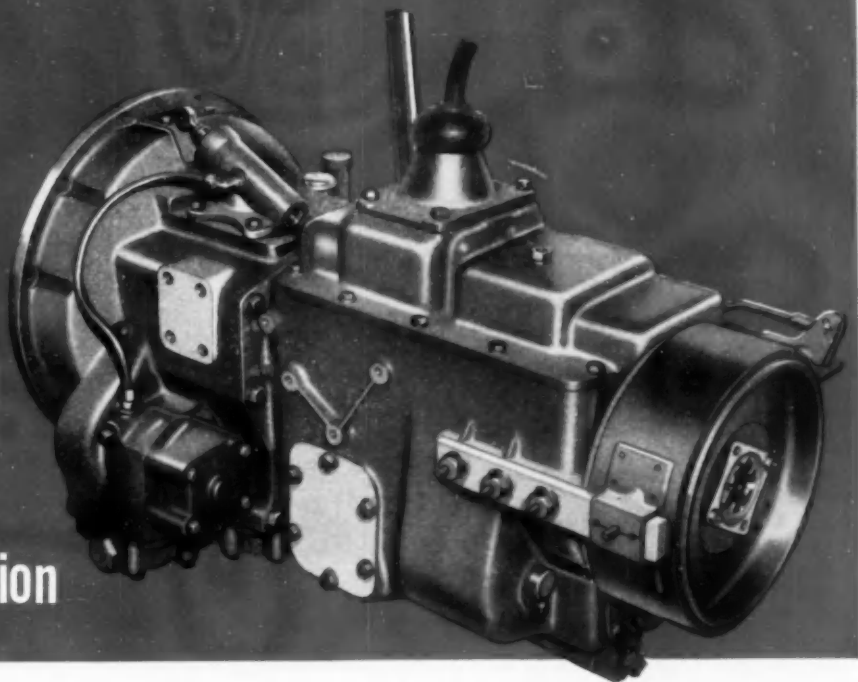
the CLARK TransVerter

COMPACT
UNIT
"PACKAGE"
OF

* Torque
Converter

* Hydraulic
Clutch

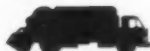
* Transmission



Trucks Operating
on delivery schedules



Coaches making frequent stops



Garbage and trash collection



Concrete mixers and
similar industrial applications



Materials handling machinery



Many stationary power plants
and oil field applications

**CLARK
EQUIPMENT**

Now comes more profitable performance for the operators of stop-and-go vehicles—trucks, both highway and off-the-highway, garbage and trash collectors, concrete mixers, materials handling machines and others: smoother, more economical handling made possible by Clark's new TransVerter.

- No heavy clutching—reduces driver fatigue. Easy control of hydraulic clutch by shift lever button, floor button, or light pressure clutch pedal
- Fine inching control with accelerator
- Gear shifting reduced appreciably. Gear changes made quicker
- Closely spaced ratios add to ease of shifting resulting in added transmission life
- Starts smoothly, no stalling, no lugging
- Longer life for entire drive-train—no shock-loading
- Less wheel slip—Tires last longer
- Clutch adjustment eliminated—Result: savings on costly down time
- Excellent accessibility for easy service. Serviceable without special tools by any mechanic familiar with transmissions
- Available for OEM or field conversion

Get the interesting story of these advantages whose economies far offset the moderate additional cost. Send for bulletin.

CLARK EQUIPMENT COMPANY, Transmission Division, Falahee Road, Jackson 3, Michigan
Please send the TransVerter Bulletin

NAME _____

COMPANY _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____



Laugh it off!

SLIM 'N GREASY, OUR SHOP ROUSTABOUT, SAYS: "TIME IS THE STUFF BETWEEN PAY DAYS."

CCJ

Lovesick Freight Loader: "You said your heart belonged to me and every night I see you out with someone else."

Beauteous Babe: Listen, Mac. My heart you can have. But the rest of me is goona live it up for awhile."

CCJ

Diner Waitress: "We have almost everything you can think of on the menu today."

Reefer Truck Driver: "That I can see, Babe, that I can see. How about bringing me a clean one."

CCJ

Shop Foreman: "Pat, your nose is suspiciously rosy this morning. What makes it so red?"

Pat: "Sure 'Tis the reflection of me soul, blushing with pride at me ability to mind me own business!"

CCJ

Sweet Patootie: "Can I have a match?"

President of Fleety-Fleet: "Now my dear, how many times have I told you when we are out to dine at smart places to be careful of your language. You should say 'may I have', not can I have'. Okay? Here's a cigarette lighter."

Sweet Patootie: "I want a match—puleeze. I can't pick my teeth with no cigarette lighter."

CCJ

Income Tax Examiner: "What's your husband's average income?"

Playboy Fleet Operator's Wife: "Lately, around 2 AM."

The trailer truck driver hauling a load of new cars was having headlight trouble. Unable to correct the trouble, he finally climbed up and turned on the lights of the front car. Pulling his rig back on the highway, the trucker saw an approaching car suddenly swerve, smash through a guardrail, and skid into a cornfield. He halted the truck, ran back to the overturned car and pulled out two stunned but uninjured occupants.

"What happened?" demanded the trucker.

"Well, as I was telling Sam," explained the dazed motorist, "if that thing is as wide as it is high, we'd better get off the road."

CCJ

Buxom Babe: "What kind of a guy are you? You danced with me last night, half an hour later you were necking with another girl on the other side of town, and an hour later you proposed to still another girl in the next town! How could you do such a thing?"

Diesel Mechanic: "Oh, it wasn't so hard. I've got a motorcycle."

Cici Jay



LEADFOOT PETE SAYS: "MIXING ALCOHOL AND GASOLINE PRODUCES MORE HEARSE-POWER."

CCJ

Luscious Lucy: "Why, Mr. Smith, why in the world didn't you catch up with me?"

Terminal Manager: "I was kind of having a debate with myself as to whether to catch up with you and enjoy the conversation or stay behind and enjoy the view."

CCJ

Steno Sue: "Why didn't you go up to his apartment last night like he asked?"

Steno Lou: "Because, all I get when I go to his apartment is rum and coax."

CCJ

1st Truck Driver: "How can you keep eatin' at that greasy spoon diner?"

2nd Truck Driver: "Oh, It's easy. I just swallow a tablespoon of Drano an hour or so after each meal."

CCJ

Steno May: "How do you like my new fur coat?"

Steno Fay: "Gee, May, it's a beauty. You must be ruined."

CCJ

The diesel mechanic and the bee line machine operator were out for a night on the town. Said the diesel mechanic to the bee line machine operator: "You drive; you're too drunk to sing."

Resume Work



1. Steel back
2. Copper-alloy lining
3. Brass barrier
4. Lead-tin overplate
5. Pure tin flash plate

Fm steel-backed,
sintered copper-
lead-lined bearing.
Fleet mileage is
built in, step
by step.*

Look under the surface to see what puts mileage into the **Fm** Sintered copper-lead bearing!

*The big step toward maximum fleet mileage is Fm's sintered copper-lead bearing lining. Through the wonders of powder metallurgy, you get the strength of copper . . . the "softness" of lead . . . *in perfect balance!*

In this Fm bearing, a brass "barrier" assures lining stability. A lead-tin overplate assists

break-in. A final, flash plating of pure tin adds corrosion resistance.

Each of these steps is engineered for fleet service—to provide maximum engine bearing mileage. Ask your jobber—he has complete stocks of Fm sintered copper-lead bearings. He provides *fast* service!

FEDERAL-MOGUL SERVICE

Division of Federal-Mogul-Bower Bearings, Inc.

Fleet



Mileage

UP TO AN extra OF PAYLOAD



SAVE
UP TO
700 lbs.
HERE!

Plants at:
Detroit, Michigan • Oshkosh, Wisconsin
Utica, New York • Ashtabula,
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TIMKEN
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TIMKEN DETROIT AXLE DIVISION
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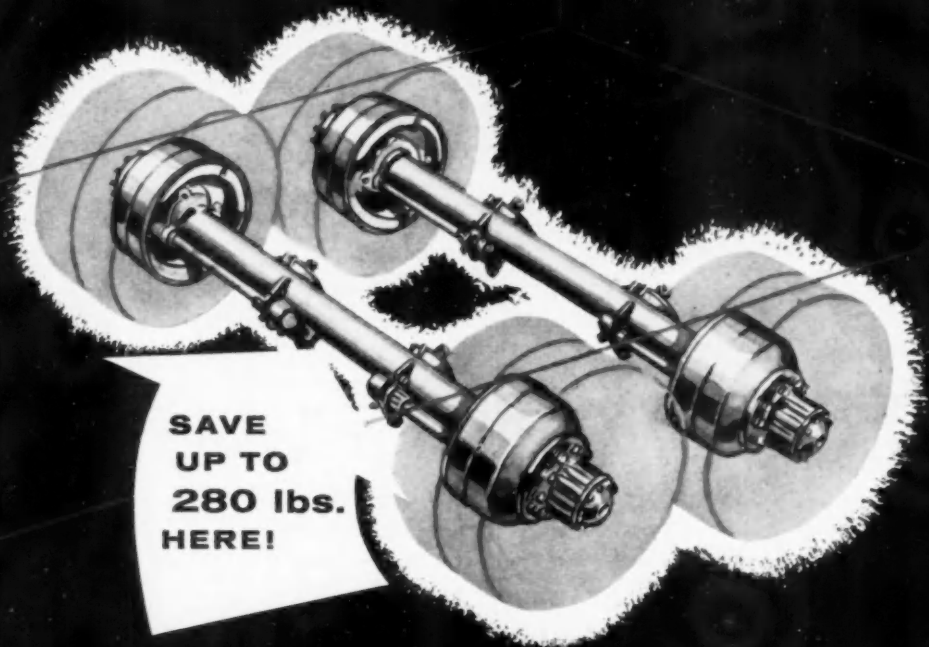


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WORLD'S LARGEST MANUFACTURER OF AXLES FOR TRUCKS, BUSES AND TRAILERS

980 lbs.

EVERY TRIP



**SAVE
UP TO
280 lbs.
HERE!**

*Almost 1,000 lbs. of extra payload
every mile for the life of the vehicle
when you use the combination of new, lightweight*
TDA® Tandem Driving and Trailer Axles!

Used together, Timken-Detroit® lightweight tandem driving and trailer axles weigh almost 1/2 ton less than other axles of the same capacity. This means up to 980 extra pounds of bonus payload every trip.* For complete information contact your vehicle dealer or branch today.

*Where 36,000 lb. tandem axle loading is permissible.



BULLETIN BOARD



Check that Signal

More than one quarterback has built an impressive reputation on knowing when to signal for a pass. Of course, when a pass is intercepted or the passer gets smeared, cheers turn to jeers and the quarterback's a bum.

On the highway, signalling for a pass can have even more serious results. 'Cause when a passer is smeared on the highway, it's apt to be fatal. Even an intercepted pass can cause plenty of damage. And if you're the one who signalled that it was safe to pass and another driver gets thrown for a loss while going around your left end, both you and your employer can face stiff penalties.

So even though it seems like the courteous thing to do, think twice about signalling another driver that it's safe to pass. Then don't do it. 'Cause courts have ruled that if the other driver obeys your signal and fails to pass safely, you and your employer can be held liable for negligence.

You can help other drivers to pass without actually telling them when. Leave enough space between you and the vehicle ahead; keep well to the right; and when traffic piles up behind you, watch for a spot where you can pull onto the shoulder to let them go by.

Salesmen give 'em a rough time

*How Superior Tea and Coffee Company
gets best performance from its trucks
by using STANOLUBE HD-M Motor Oil*



Jerry Bocek (right) and Jim Phelps, Standard automotive engineer check dip stick on one of Superior Tea and Coffee units. Jim Phelps has more than 29 years experience with Standard—aviation as well as automotive. Jim knows lubrication, is well qualified to give customers technical help on lube problems.

This old, established Chicago coffee company has 60 trucks—panel, sedan delivery and station wagon—plus some executive cars. These vehicles average 2,200 to 2,500 miles per month. Service includes long haul, country driving with hot engine operation as well as start-stop city driving with plenty of idling. Conditions are made more complex because operators are route salesmen not truck drivers. Jerry Bocek, the Superior shop superintendent, is the one who has to worry about maintenance, drivers don't. Jerry uses one motor oil for all units—STANOLUBE HD-M—and keeps them in top operating condition.

STANOLUBE HD-M Motor Oil has the ability to give superior service over a wide range of operating conditions. It helps protect the engine parts regardless of the rough treatment from the drivers. It can do these things because it is an oil designed for severe service. Oil is refined from highest quality base stock. Special additives selected by Standard have been added. These additives retard oil oxidation, minimize formation of piston and ring deposits, prevent formation of excessive varnish and sludge and prevent corrosive attack on bearing metals.

Get this high quality lubrication for your trucks. Get the facts about STANOLUBE HD-M Motor Oil from your Standard Oil automotive lubrication specialist. There's one nearby you in any of the 15 Midwest or Rocky Mountain states. Or write Standard Oil Company, 910 South Michigan Avenue, Chicago 80, Illinois.

Quick facts about STANOLUBE HD-M Motor Oil

- 1** Refined from highest quality solvent extracted, base stocks.
- 2** Contains special additives that prevent bearing corrosion, reduce piston varnish and keep rings free to seal against blow-by.
- 3** Contains still other additives that reduce wear on heavily stressed parts.

Going over the lube schedule. Jim Phelps and Jerry Bocek hear from Standard's Tom Farrell. Tom, too, is an experienced automotive lube specialist. He has six years experience in such work. He has a degree in engineering, is a graduate of the Standard Oil Sales Engineering School.



STANDARD OIL COMPANY
(Indiana)

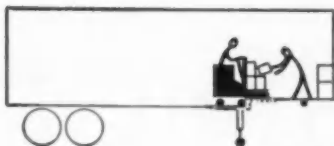




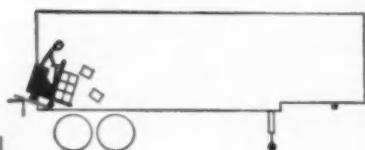
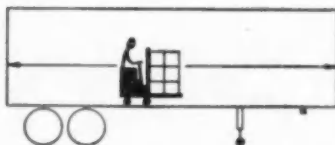
LO-LEVEL

changes drop frame liabilities

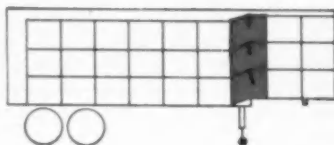
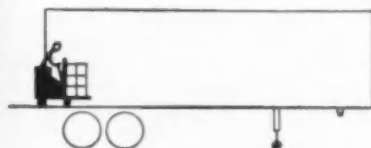
to straight frame profits



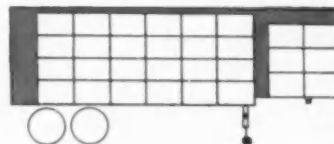
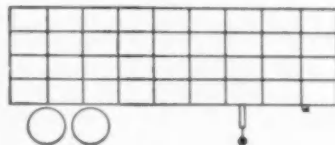
- Lift truck loading front to rear
- No "man-handling" over the drop
- Allows speedy complete palletized loading
- Eliminates cargo damage due to double handling



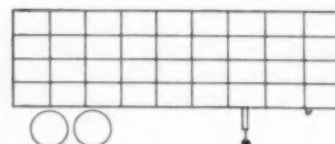
- Provides dock level floor height
- No "steep" awkward ramps required
- Eliminates cargo damage due to load toppling
- Door heights not reduced by sloping ramps



- Eliminates crushed cargo at the drop due to "carton overhang"
- Takes the "neck" out of the bottleneck
- Ends safety hazards created by drop floor design
- Provides more tire clearance and greater tire wear



- Speeds loading by eliminating "chinese puzzle" drop zone problems
- Level floor creates one uniform cargo area for easier loading
- Greater payloads of uniform packages allowed in less cubic space
- Straight frame lowers wind resistance



Everybody offers volume . . . only CID* gives you VOLUME-PLUS!

TRAILMOBILE INC.

*Customer Individualized Design

Cincinnati 9, Ohio • Longview, Texas • Berkeley 10, California • Springfield, Missouri

FOR FREE ITEMS INCLUDED IN THIS REVIEW OF CURRENT MAINTENANCE AND SAFETY PUBLICATIONS, USE READER SERVICE POSTCARD ON PAGE 52

Automotive Antifreeze Analysis

Here is a short (23 pages) but comprehensive analysis of automotive antifreezes that truck operators should find handy in debating the merits of the various types, deciding on which to use: It is the 1956 version of "Automotive Antifreeze" published by the National Bureau of Standards.

It lists the properties of an ideal antifreeze, describes the basic types available under five headings—alcohol, glycol, salt-base, petroleum and miscellaneous. Also discussed are minimum temperature requirements for various parts of the United States, antifreeze composition in relation to the freezing point and antifreeze testing.

Final sections of the booklet—corrosion, corrosion inhibitors and coolant materials—are especially interesting. Copies are available at 15¢ each from Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Ask for "Automotive Antifreezes, National Bureau of Standards Circular No. 576."

Local Cartage and Local Transit Study

Both local cartage and local transit fleet operators will be especially interested in a new book, "The Metropolitan Transportation Problem." It is a full scale study on urban transportation—trucks, buses, highways, parking, etc.

Suggestions from the study include: There is need for a complete controlled-access urban highway network. Public transportation is essential . . . Mass transit plays a vital role in rush hours, and its revitalization is essential.

Most interesting conclusion is that there must be more of a balance between residential and working areas. Says the book, when everyone moves in the same direction at the same time, no system of transport can provide satisfactory service.

Copies of the book, "The Metropolitan Transportation Problem," are available at \$4.50 each from the Brookings Institution, 722 Jackson Place, N.W., Washington 6, D. C.

Hydraulic Oil Maintenance Tips

Texas Co. has devoted the August issue of its "Lubrication" magazine to tips on keeping hydraulic oils clean. With vehicle use of hydraulic reefer motors, hydraulic dump hoists and the multitude of applications on highway building equipment, many fleet operators should find it handy. (It will supplement lube oil data too.)

It covers storage and handling, filters, draining, cleaning and flushing, dirt in hydraulic systems. A convenient feature is a two-page chart on trouble shooting. It covers

pump noises, lack of pressure, pump breakage, oil leaks, wear, heating and what to do when pump fails to deliver fluid.

For a free copy, circle L 1 on the postcard on page 52.

Industrial Vision Manual

Safety men will find this manual handy for both vision testing of drivers and eye safety in the shop and loading areas. Chapter headings include industrial eye hazards and protection, visual testing, vision and work efficiency, visual tests for driving ability and the relation of vision and visual testing to driving ability.

Each chapter is followed by a selected listing of additional material of value for further investigation. Copies are available in local bookstores or from the Book Division, Chilton Co., 56th and Chestnut Sts., Philadelphia 39, Pa. Price is \$10.00 a copy.

Vehicle Engineering Guide

This new edition of "Motor Vehicle Engineering Guide" by James W. Fitch will serve fleetmen two ways. It will aid in the mechanical side of selecting new vehicles and help in more efficient maintenance through greater understanding of the operation and function of the various vehicle components.

It is an 11-chapter, 167-page book that covers vehicle selection, torque and horsepower, vehicle speed, gradeability and performance, load analysis, engines, steering, brakes and drive lines, axles and 6-wheelers and trucks of the future.

Copies are \$4.75 each and are available from Motor Vehicle Engineering Guide, 2225 Folsom St., San Francisco 10, Cal.

Urban Bypass Report

From the Chamber of Commerce of the United States comes this 24-page report on "How Bypasses Affect Business." Intercity fleet operators who realize the time saving value of bypass highways around urban areas and who have also bumped into opposition from businessmen who fear a bypass will take away trade, reduce land values will find it of value.

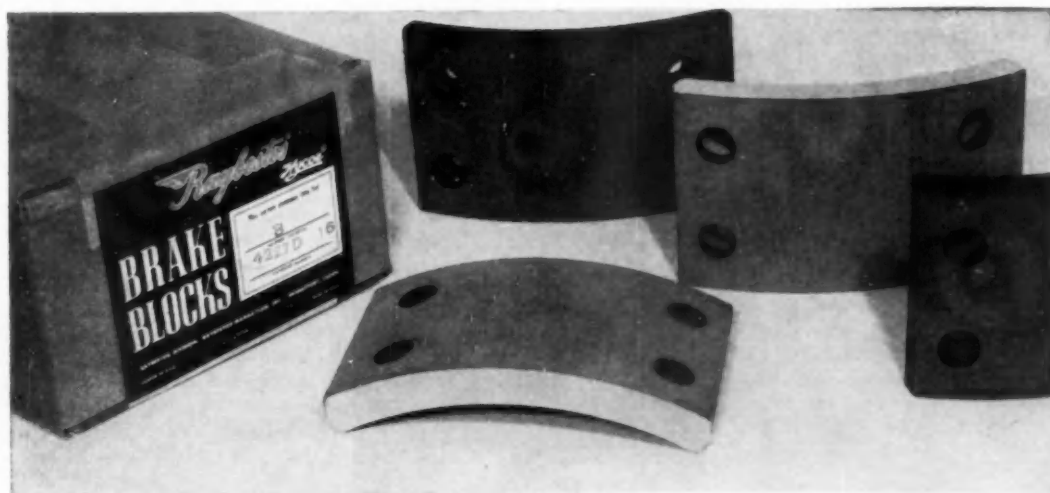
In this publication, fleetmen will find (1) effective facts to prove the value of bypasses and (2) data from studies that show resulting increases in business volume and land values. Copies are available at 50¢ each from the Chamber of Commerce of the United States, Washington 6, D. C.

(FOR RECENT MANUFACTURERS' LITERATURE, SEE PAGE 190)

Raybestos®

COMBINATIONS

will give you lower cost-per-mile



Yes, you will have lower operating costs because of the quality, uniformity and performance of these famous Raybestos products • **Brake Blocks** • **PGT Sets** • **Clutch Facings** • **V Drive Plates** • **Fan Belts** • **Radiator Hose**. To learn more about the savings Raybestos can give you, ask your Jobber Salesman about the unique Raybestos Fleet Engineering Plan.

Raybestos®

AMERICA'S BIGGEST SELLING BRAKE LINING



RAYBESTOS DIVISION of Raybestos-Manhattan, Inc., BRIDGEPORT, CONN.
RAYBESTOS-MANHATTAN, INC., Brake Linings • Brake Blocks • Clutch Facings • Fan Belts • Radiator Hose • Industrial Rubber, Engineered Plastic, and Sintered Metal Products • Rubber Covered Equipment • Asbestos Textiles • Laundry Pads and Covers • Packings • Abrasive and Diamond Wheels • Bowling Balls

NEW

PRODUCTS

THE LATEST DEVELOPMENTS IN PARTS, ACCESSORIES, TOOLS AND EQUIPMENT FOR THE FLEET FIELD, DESCRIBED IN BRIEF FOR YOUR CONVENIENCE

P1. Shop Crane

The Stratton Equipment Co., Cleveland, Ohio, announces a new shop crane. It features a sliding extension beam that affords 39 in. of additional lifting length or height, adjusts to three different positions, has safety plunger foot brakes as well as adjustable legs that enable the operator to straddle large objects for lifting operations. It is available in 1, 2, and 3-ton models.

P2. Check Valve

Berg Mfg. & Sales Co., Chicago, is producing a new "immersed-type" check valve for air brake systems as required by the recent ICC regs. A one-way valve, it prevents back-flow up to 600 psi says Berg. It can be installed with little or no modification of present air lines by disconnecting the present line and fitting from the reservoir, screwing the valve into the tank and re-installing the present line and fitting into the valve body. It is made of an anodized aluminum alloy with a paracril-type rubber compound sleeve. This is said to be unaffected by oils, alkalis, most acids, fungus, ozone and moisture, and remain flexible at extreme temperatures.



P3. Timing Light

Auto-Test, Inc., Chicago, announces its "Mark IV" power timing light. It features an 11-in. plastic case with balanced pistol grip and touch-switch located for convenient operation by "trigger" finger. Easily replaced flash-tube is Xenon-filled. Two, 50-in. leads are black, Preenx to resist oil and grease, with large vinyl covered Mueller clips. One, 50-in. neoprene lead is rose in color.



P4. Engine Tester

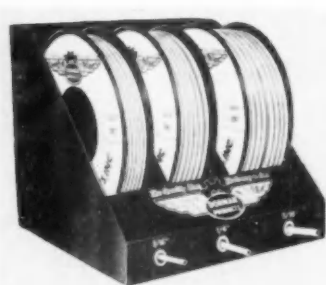
Allen B. Du Mont Laboratories, Inc., Clifton, N. J., announces its TV-type "EnginScope" with attachment designed for detection and location of valve and manifold difficulties. It gives TV-like picture presentations of the overall valve operation, cylinder-by-cylinder. A valve testing attachment converts the pressure and vacuum changes in the exhaust and intake manifolds into electrical signals. These are reproduced on the unit's screen as lines of light—one for each cylinder. When one line does not conform to the pattern of the others, the operator has found the faulty valve or valves. Unit connects like a standard vacuum gage.

P5. Shop Crane

Sasgen Derrick Co., Chicago, announces a portable shop crane weighing only 350 lb. Crane will carry a 3000 lb load on a single line with only one man at the crank. It can be tilted back like a two-wheel truck and wheeled through low overhead doorways. Seven turns lift the load approximately one foot and, regardless of where the operator stands turning, the load is held in that position.

P6. Tubing Dispenser

Dorman Products, Inc., Cincinnati, Ohio, has developed a copper tubing dispenser for fleet shops. It is designed to hold three 100-ft spools of copper tubing, mounts almost anywhere for ease of obtaining the tubing. Tubing spools fit into dispenser and free end of tubing is put through a hole in the front. The holes can be marked with the tubing size. Dorman says its Model No. 75 dispenser comes with 100-ft spools of 3/16, 1/4 and 5/16-in. copper tubing or with any three of the following sizes: 3/8, 3/16, 1/4, 5/16 or 3/8-in. Advantages cited by the maker include "layer-wound" coils that unwind like thread, no kinks as tubing straightens.



P7. Gas Exhaust System

Harvey Industries, Cleveland, Ohio, announces two new components for vehicle exhaust eliminating systems. First are heavy duty, non-crush, flexible rubber, and galvanized or stainless steel hoses especially manufactured for use with any type of carbon monoxide gas exhaust system. The other are tailpipe adapters, Y's and fittings for all 1957, both single and dual exhaust, cars and trucks. They can be used with a coupler for quick and easy interchange.

P8. Piping Connector

Mechanical Products Corp., Chicago, announces a new self-sealing, automatic locking "Push On-Pull Off" tube plug and connector. It permits connection of the element under test to the vacuum or pressure source without the use of tools, threading, soldering or brazing. In addition, the connector has wide application wherever pressure and vacuum lines are used, such as on heat exchangers, refrigeration units, tube assembly, etc.

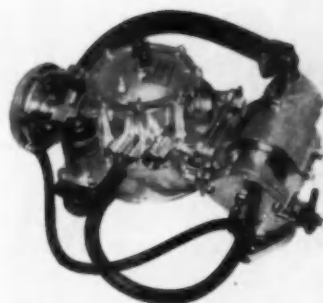


P9. Magnetic Inspector

Chain-Lock Process Co., Philadelphia, has developed a portable, magnetic inspection instrument. The unit weighs 42 lb. It is based upon the magnetic particle principle of inspection. The instrument is designed to detect cracks in any ferrous (iron steel) metal casting. Chain-Lock says it will find minute cracks not visible to the human eye. Unit not only detects cracks but outlines them on the component being tested so the extremities and size of crack can be fully identified. Chain-Lock claims the magnetic inspection instrument will inspect engine blocks and heads faster and more accurately than is possible with the human eye.

P10. LP Gas Injector

National Products Mfg., Inc., Lubbock, Texas, announces production of an LP gas fuel injector designed to replace the conventional carburetor. Injector is a single unit. Fuel is carried through the unit under 2 psi pressure and injected into the air flow as demanded by the engine. Fuel and air are mixed before entering the manifold in the units mixing chamber. This, says National, eliminates "wet spots" in the fuel that cause warpage and burning of valves.



P11. Grease Fitting Cap

Wilson Plastics, Inc., Sandusky, Ohio, announces grease fitting caps designed to maintain clean, dirt-free grease fittings between lubrications. They may also be used to mask grease fittings during spray painting. "Lub-seals" are compact Tenite II Butyrate plastic caps which snap over any standard grease fitting. They are available in four bright, attention-giving colors which effectively "flag" hard to find grease fittings.

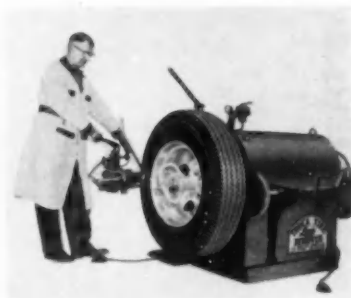
P12. Service Dollies

Noverlode Sales Division, Whitewater Mfg. Co., Whitewater, Wis., announces three models of an hydraulic-operated trailer and truck service dolly. Unit for semi-trailer and general purpose work has a low height of 34 in., is adjustable to 54 in. plus a 9-in. hydraulic lift with a 15-ton capacity. For low bed trailers, unit is available with 24-in. low height adjustable to 48 in. with 8-in. lift and 15-ton capacity. Ten-ton capacity unit has low height of 18 in., adjusts to 30 in., has a 6-in. lift. Spring-mounted casters provide portability when units are not in use. Semi-trailer model comes with two caps, one designed to fit fifth wheel pin.



P13. Speed Signal

All-American Sales Co., Leonia, N. J., announces a safe speed signal. It is attached through the speedometer cable connection and has a control unit that clamps onto the dashboard. A single electrical connection to the ammeter activates the unit for use. The control is preset for any desired speed. When this speed is exceeded, a buzzer sounds that warns the driver. It is adjustable to varying speed limits.



P14. Tire Changer

O.K. Service Supply Co., Littleton, Colo., offers the Lewis truck tire remover for 17.5, 19.5, 22.5 and 24.5 size tires. O.K. Service says it will do the job in 60 to 90 sec even when rim is corroded or tire is fused to rim. It is hydraulic-powered, can exert a force of up to 10,000 lb on a 2-in. bead surface. Safety features have been included to prevent injury to the operator, tire, wheel or machine. Operator rolls wheel onto a pneumatic elevator which lifts tire to proper height. It is then clamped into place and, as wheel rotates, the front bead is broken using a roller-type breaker. Disc-type breaker then breaks back bead.

(TURN TO PAGE 56, PLEASE)

How to Air Condition

Gulf Transport Co. in St. Louis is currently completing modification of a third transit motor coach for the fleet operating between East St. Louis and the city. Officials report that the two coaches now operating are "doing a swell job . . . certainly gaining favor with passengers." They report, too, that inside temperatures reach a point 10° to 15° cooler than

outside temperature, and *stay* there. No bouncing thermometer! To Gulf Transport Co. goes credit for the decision to air condition the fleet—to Blitz Body Corporation credit for coach modification—and to Tropic-Aire—Carrier credit for overall design and equipment.

AFTER

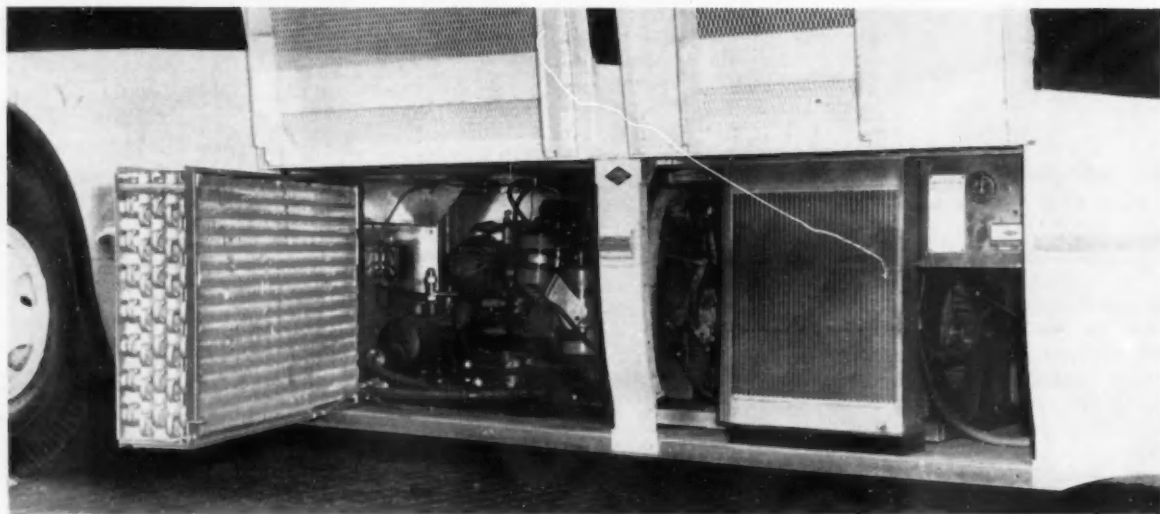


BEFORE



The fleet was made up of ordinary transit coaches. Examination showed that there was space enough between the chassis and the deck for installation of an air conditioning unit. Only the horizontal design

of Tropic-Aire—Carrier equipment was suitable for this installation. (Tropic-Aire—Carrier air conditioning equipment was *engineered for motor coach installation.*)

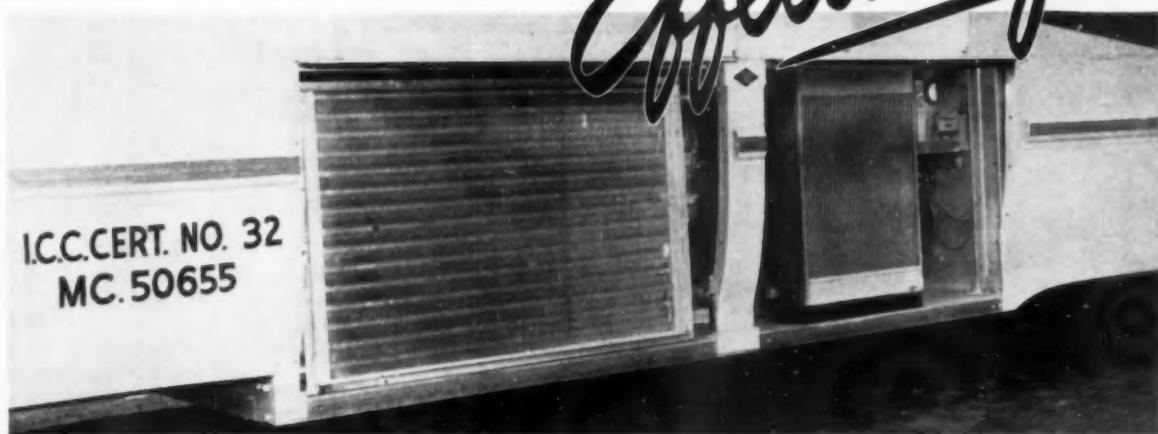


Main power plant for the air conditioning equipment was located directly behind the left front wheel housing, since original construction was such that, by reinforcing two crossmembers, ample space for a

compartment was provided. In the compartment thus available, the power plant was installed, and hatch-covers were built to conform to the original outer wall.

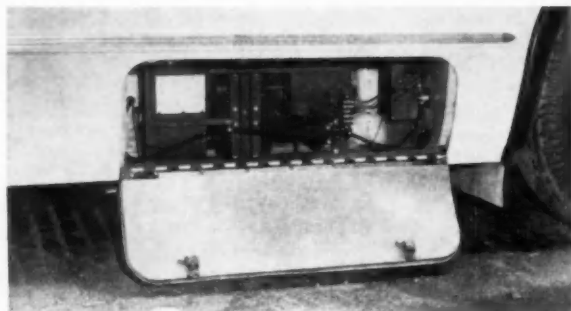
a transit coach

Effectively!



Here's the final installation . . . ready for work! Clean construction of hatches allow fast, easy accessibility for service, if necessary. With condenser swung back

into running position, hatches close to form clean, smooth outer lines, flush with outer wall. All the air conditioning equipment is inside—where it belongs.

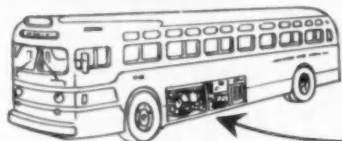


A standard hatch and compartment on the right side of the coach provides plenty of space for blower and necessary air moving equipment. This arrangement eliminates necessity of long, complicated ductwork. A single riser duct—which requires less space than a single seat—does the job. The return air receiving duct, less than 12" long, returns the air to the cooling section thru a filter.



And here's the interior! Overhead is lowered an inch or two, providing a suitable manifold or plenum. Tiny $\frac{1}{8}$ " openings throughout the overhead permit a controlled air flow which moves evenly throughout the coach. Multiple air outlets create an "air curtain" effect; opening and closing of doors presents no serious cooling loss problem. Even the driver is comfortably cool—all the time!

**When you air-condition your fleet—transit or intercity—
Tropic-Aire—Carrier can do the whole job—effectively!**



TROPIC-AIRE, INC., 5201 W. 65th Street, Chicago 38, Illinois
Tropic-Aire, Inc. is a subsidiary of McGraw Electric Co.

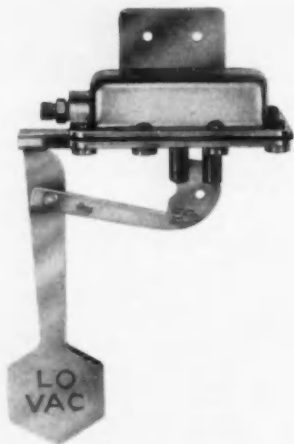
PRODUCTS

THE LATEST DEVELOPMENTS IN PARTS, ACCESSORIES, TOOLS AND EQUIPMENT FOR THE FLEET FIELD, DESCRIBED IN BRIEF FOR YOUR CONVENIENCE

Continued from Page 53

P15. Low Vacuum Signal

Berg Mfg. & Sales Co., Chicago, is producing an automatic low pressure signal designed for vehicles equipped with vacuum brakes. It indicates low vacuum in the reservoir as required by ICC Regulations 193.51. A flag falls automatically when pressure



drops to 6 in. (Hg) . . . raises automatically when vacuum returns to normal operating pressure of 10 in. (Hg) or over. "Lo-Vac" is a visible device that mounts on the windshield where it can be seen both inside and outside the cab, is installed by connecting it to any constant vacuum line.

P16. Shim Spacers

Thomas Associates, Los Angeles, Cal., announces production of a line of miniature shim spacers for use with Kaylock miniature self-locking nuts. The shim spacers are available in a complete complimentary line to cover all available sizes of Kaylock miniature nuts. They are available in .031 or .062 gage aluminum.

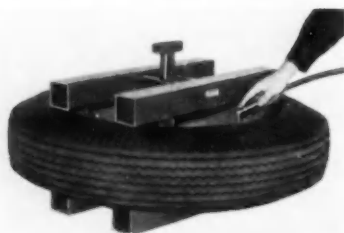


P17. Low Vacuum Signal

Cole-Hersee Co., Boston, Mass., has a new low vacuum warning kit to meet the requirements of ICC Regulation S193.51. Kit is available in continuous or flashing lamp models for 6, 12 and 24-volt electrical systems. A large red pilot light on the dash immediately warns driver when braking vacuum is insufficient to stop the vehicle. Kit contains a precision vacuum switch which is easily installed in the brake line and energizes the warning light when the vacuum drops to less than 10 (± 2) in. Dash unit has a large-diameter red pilot light mounted on a maroon face plate, mounts through a $\frac{3}{4}$ -in. hole.

P18. Safety Inflator

Branick Products Co., Inc., Fargo, N. D., announces its new safety inflation device for protection of oper-



ator when inflating truck tires. Rim or wheel is dropped over bottom section with upright post. Top section is placed on post and given $\frac{1}{4}$ turn to lock. It occupies only 13 x 26 in. floor space, weighs 67 lb.



P19. Diesel Pin Fitter

Tobin-Arp Mfg. Co., Minneapolis, Minn., announces its new Model No. PM 900D pin fitting machine, designed especially for precision boring of connecting rod bushings, cam lever bushings, rocker arm bushings on diesel engines. Attachment for align boring Turbocharger bearings on Cummins diesels is available. Boring capacity is from 21/32 to 2 1/2 in. Connecting rod capacity is 3 3/4 to 2 3/4 in., center to center.

P20. Auxiliary Braking

Keehn-O Mfg. Co., Santa Rosa, Calif., has available an auxiliary emergency braking system for vehicles with air brake systems. Basic functions of the system are: (1) Automatic severance of air flow to brake diaphragm in the event of failure of either diaphragm or flexible drop line, (2) Air severance from steering axle brakes in event of failure of either brake, (3) Automatic break-away protection for truck, (4) Emergency braking system entirely inde-



pendent of normal air supply. CO₂ is used as a pressure source for emergency braking.

(TURN TO PAGE 60, PLEASE)

**Another way coated nylon tarps
can save you money—**



Lighter-weight coated nylon tarps cut costly dead weight

Fleet owners can increase the earning power of their carriers with lighter-weight tarps of coated nylon. These easy-to-handle tarps are only one-third to one-half as heavy as ordinary tarps—reduce cost of carrying a non-pay-load item.

Because coated nylon tarps are not just "water-repellent" but fully *water-proof*, they're a major protection against water-damage claims. Coated nylon tarps last two to three times longer, too. Even when furled and stored wet, they effectively resist rot

and mildew damage. And you can easily take care of repairs in your own shop—in minutes.

Learn how coated nylon tarps can save you time and money. Ask your tarp fabricator or fabric supplier for complete information, or write E. I. du Pont de Nemours & Co. (Inc.), (CC-10), 2494 Nemours Bldg., Wilmington 98, Delaware.



BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY



- Fully waterproof
- Longer-lasting
- Easier to repair
- Lighter-weight
- Resistant to rot and mildew

***LIGHTER—
LONGER-LASTING***

TRUCK TARPULINS OF COATED DU PONT NYLON

Why big fleets buy more Ford Trucks than any other make

Low truck costs are just as important to big fleet users as they are to you. And, when fleet buyers favor Ford, you can be sure they've checked all cost factors. You can be sure they've found that *Ford trucks cost less.*

Shown here are just five of the *thousands* of representative business firms that have found Ford Short Stroke power means lower gas and oil consumption . . . that Ford's stronger chassis means longer truck life (insurance actuaries *prove* Ford trucks last longer) . . . that at trade-in time, Ford's traditionally high resale value means money saved!

So—from pickups to 65,000-lb. GCW BIG JOBS the big fleets are going Ford. Take a tip from the men who buy trucks every year! Your Ford Dealer will be glad to prove to you why Ford trucks cost less.



Fords last longer. "Our 160-Ford fleet covers 8,000 miles a day. And one '41 Ford is still going strong," says Western Truck Lines.



Ford means maneuverability. "Tight spots and heavy city traffic are no problems for our easy-handling Ford C-500's," says Commercial Motor Freight, Inc.

FORD TRUCKS



Extra pay in the payload. "Our Ford T-800's carry 2,000 lb. more concrete than other comparable trucks," says Western Cement and Equipment Co.



Ford features extra-rugged chassis. "We need a truck that can take a real beating and keep on going . . . that's why we count on Ford," says Red Star Express.



Ford cuts maintenance costs. "If all our equipment was as tough as our 90 Ford F-600's, we'd have no maintenance problems," says Adley Express Co.

COST LESS—LAST LONGER

PRODUCTS

THE LATEST DEVELOPMENTS IN PARTS, ACCESSORIES, TOOLS AND EQUIPMENT FOR THE FLEET FIELD, DESCRIBED IN BRIEF FOR YOUR CONVENIENCE

Continued from Page 56



P21. Valve Seat Grinder

Cedar Rapids Engineering Co., Cedar Rapids, Iowa, announces a valve seat grinder for reefer and other small, air-cooled auxiliary engines. Wheels as small as 1-in. diameter with 7/16-in. hole are available for use with the unit. Power has been provided for using larger wheels.

P22. Sanding Pad

Behr-Manning Co., Troy, N. Y., has developed an improved 8-in. rubber pad for feather-edging and blending contours in metal, wood or plastic surfaces. The new 5/8-in. thick pad is made expressly to withstand rough treatment on slow-speed portable grinders and polishers, with a 5/8 in.-11 shaft, operating in the range of 900 to 1500 rpm.

P23. Wheel Cups

Eis Automotive Corp., Middletown, Conn., has a new series of wheel cylinder cups. Eis says the new cups are molded of a new compound that withstands high heats yet remains flexible down to 50° below zero F. Cup assortment embraces all sizes from 3/4 in. up to the largest truck numbers.

P24. Aluminum Body Kit

Reynolds Metals Co., Louisville, Ky., has available a prefabricated all-aluminum truck body kit. Available in standard lengths of 12, 14, 16, 18 and 20 ft, these kits are shipped in five subassemblies: roof, 2 sides, front, and rear end assembly. Two men using wrenches as their only tools can assemble a complete shell.

P25. Jack Repair Kits

Jack-Pack Mfg. Co., Norwalk, Cal., says it has "Do-it-Yourself" repair kits for every make and model hydraulic jack. Kits contain all the cups, packings, seals, gaskets, back-up washers and valves necessary.

P26. Dockboards

The Kelley Co., Milwaukee, Wis., announces a line of redesigned automatic dockboards. Pit construction for this truck-actuated, counterbalanced ramp has been simplified. Cross traffic lock which supports ramp in dock level position has also been re-



designed and improved. A positive safety stop which prevents free-falling of the dockboard if a truck should pull away leaving the lip unsupported is included. The single sliding-type operating arm, furnished on previous models, has been replaced with two adjustable arms which pivot on the front cross beam.



P27. Power Steering

Purolator Products, Inc., Rahway, N. J., announces a combination reservoir and filter for hydraulic fluid for truck power steering systems. Filter is available as original equipment or for fleets with no present protection of the power steering unit. Measuring approximately 13 11/16 in. overall and 4 15/16 in. in diameter, the new reservoir filter is for use with hydraulic steering mechanisms. A pair of brackets for easy mounting are included with each unit. Resin impregnated convoluted cellulose filter element is designed to remove all abrasives above the 10 micron size range from the hydraulic fluid.

P28. Roof Coating

Stonhard Co., Philadelphia, has developed an aluminum roof coating. It contains pure aluminum throughout blended with a highly refined vehicle and special grade asbestos fibers which interlock to provide solid, durable, weather-tight protection.

P29. Wiring Connector

Aircraft-Marine Products, Inc., Harrisburg, Pa., announces a new "Fastin-Faston" multiple circuit wiring connector designed to provide simultaneous engagement of multiple circuits. It simplifies such operations as the connection of front and back assemblies in automotive ignition systems. Connector can accommodate as many as six input and nine output leads.

(TURN TO PAGE 192, PLEASE)



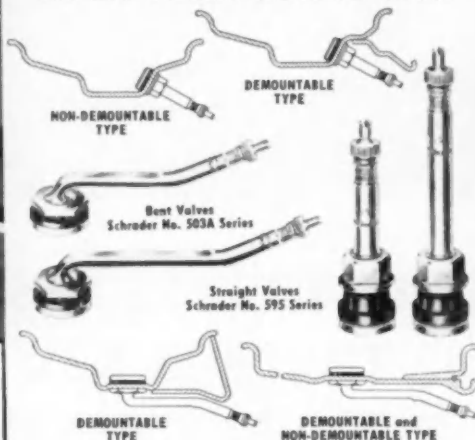
It's easy to predict flats and fix 'em in the shop

Any flat on the road is a headache. Unnecessary, too, because most flats give plenty of warning before they happen. Many fleets gauge and record air pressures daily, locate unusual pressure drops that mean trouble ahead. This advance notice lets them fix flats in the shop where it's cheap and easy.

Do as so many profitable fleets do: Certify accuracy of gauging-inflating equipment with Schrader 8106B Trutest Special Gauge, and inspect all tires with Schrader Service Gauges. Schrader Chucks, Couplers, Chuck Gauges and Accessories help air lines operate faster and better. Specify genuine Schrader Tire Valves, Cores and Sealing Caps, guaranteed airtight even at 250 pounds pressure.

Schrader Products Important to Best Tire Maintenance

Two New Tubeless Valves for Trucks



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Division of Scovill Manufacturing Company, Incorporated
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Schrader®

ESTABLISHED IN 1844

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

In just 40 seconds he helps make **TIMKEN®** bearings stronger



(Another reason why TIMKEN bearings are first choice with truck manufacturers)

IT takes only 40 seconds for this spectrometer at the Timken Company's steel mill to tell the exact chemical analysis of a melt of bearing steel. The findings are then flashed back to the melter at the furnace within two minutes. Thus, he can maintain practically continuous control over the molten steel's chemical composition. And he can be certain of the correct analysis at the moment the heat is poured.

Exacting control of the melt is another typical example of the quality controls guarding every manufacturing step to make Timken® bearings stronger and better.

Only *Timken* bearings give you *all* these advantages: 1) advanced design, 2) precision manufacture, 3) rigid quality control, 4) special analysis Timken fine alloy steel.

They add up to the sound reason why Timken tapered roller bearings are first choice with truck manufacturers. And why *you're* wise to specify Timken bearings for replacement.

For helpful information, send today for free booklet, "Timken Tapered Roller Bearings—Their Care And Maintenance". Write Dept. JCC-10, The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ont. Cable address: "TIMROSCO".

**SINCE THEY'RE BEST WHEN
THE TRUCK IS NEW, THEY'RE
BEST FOR REPLACEMENT, TOO!**



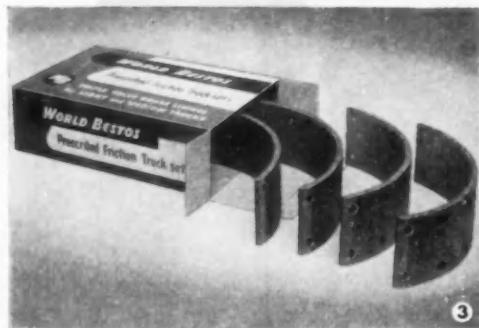
TIMKEN *TAPERED ROLLER BEARINGS ROLL THE LOAD*

TRADE-MARK REG. U. S. PAT. OFF.

you can get

SAFER BRAKES

PLUS more mileage
and reduced brake
maintenance costs
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Call your World Bestos Distributor for
ALL your Brake Lining and Brake Block
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World Bestos gives you
MORE STOPPING POWER!



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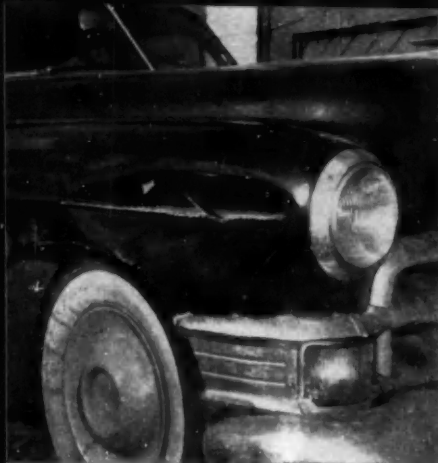
WORLD BESTOS

COMPLETE LINE of brake lining sets for
every type of vehicle from personnel cars
to heaviest transport rigs

- 1 For big rigs in severe service:** World Bestos **RED BLOCK** Combination with the **NO-FADE GUARANTEE** (heat or water) is unequalled for safety, long mileage and low operating cost. Often pays for itself in savings on brake drums alone!
- 2 For heavy-duty equipment in normal service:** World Bestos **BRAKE BLOCKS** in 5 Frictions are available in engineered sets and custom combinations that assure safe, dependable stopping power and long, trouble-free service life for all truck and trailer brakes.
- 3 For light and medium trucks . . .** such as auxiliary trucks used in heavy fleet operations: World Bestos **"PFT"** Sets (Prescribed Friction Truck) are special friction formulas engineered exclusively for hard-driving, stop-and-go service.
- 4 For passenger cars and light trucks:** Top quality World Bestos **"PF"** (engineered dry-mix sets) and **"GL"** (wireback sets) assure safety, long wear, complete dependability and satisfaction under all operating conditions.

WORLD BESTOS

NEW CASTLE, INDIANA



Whether it's a cut, dent, tear or rust damage—body repairs take a lot of time, materials and money the conventional way!



First rough out damaged area with hammer and dolly. Here, No. 16 grit abrasive disc was also used. Surface is now ready for patching.



Apply compound based on BAKELITE Epoxy Resin. Shaped roughly to damaged area, it's easy to form needed contours.



Heat lamp 1 foot from patch hardens mixture in 15 minutes. Shrinkage is no problem. Feathered edges hold fast!



Finish sanding is final step. Even a No. 50 disc won't "load." BAKELITE Epoxy Resin machines and drills beautifully.



Patch ready for painting. Extreme hardness yields superior finish, no special paints needed. Treat as *any* metal.

With new plastic patch— **25 minutes from start to "ready to paint"**

Figure the savings BAKELITE Brand Epoxy Resin can mean in keeping your fleet looking like new! Any apprentice can use it—almost any job can be done in an hour or so!

When hard, this amazing resin resists moisture, corrosion and weathering. Resin holds tight enough for rough or finish sanding, machining and drilling—there's no time lost "adjusting" feathered edges.

The compound, mixed with its hardener, sets at room temperature. If a solder torch is used, hardening takes place in as little as one minute; an infra-red heat lamp will harden patch in 15 minutes! The photos above, taken at Mac's Body Shop, Revere, Mass., show the steps in patching a fender by this fast, simple method. Write to Dept. QJ-35 for list of suppliers.



BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation **UCC** 30 East 42nd Street, New York 17, N. Y.
The term BAKELITE and the Trefoil Symbol are registered trade-marks of UCC

NEW INTERNATIONAL



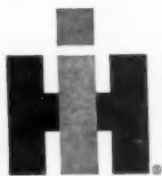
Most productive for your job!

Here is the most productive V-8 horsepower in any truck! New INTERNATIONAL 206, 226, and 257 h.p. truck engines that are specially designed for over-the-road haulers. Built to save time and money! Built to haul big profit-making payloads! These low-stress V-8 engines give

you faster acceleration and maintain higher average road speeds with less shifting . . . cut trip time way down. Sturdy Y-block construction, new valve design, improved carburetion and ignition all add up to greater economy and dependability. Truck weight is down, payload pounds up

through extensive use of lightweight metals and elimination of "dead-weight." New V-Line models have short BC dimension and better weight distribution, too. See your INTERNATIONAL Dealer or Branch and drive one today. International Harvester Company, Chicago.

INTERNATIONAL[®]
TRUCKS



**All-Truck Built to
save you the BIG money!**

Motor Trucks • Crawler Tractors • Construction Equipment
McCormick[®] Farm Equipment and Farmall[®] Tractors



Here's PIE's new Los Angeles shop and terminal. Shop, at left, covers 68,000 sq ft

Nation's Biggest Truck Shop

Opens at PIE's Los Angeles Terminal

**"Production line" methods for routine servicing
and major overhauls offer ideas for smaller shops**

LARGEST TRUCK maintenance center in the nation, Pacific Intermountain Express Co.'s brand new Los Angeles shop is now operating in high gear. Designed for maximum maintenance efficiency, it could well stand as a "dream" shop for most fleet maintenance chiefs. Still, the principles which it illustrates in "king size" application could well be put to use in other, smaller shops.

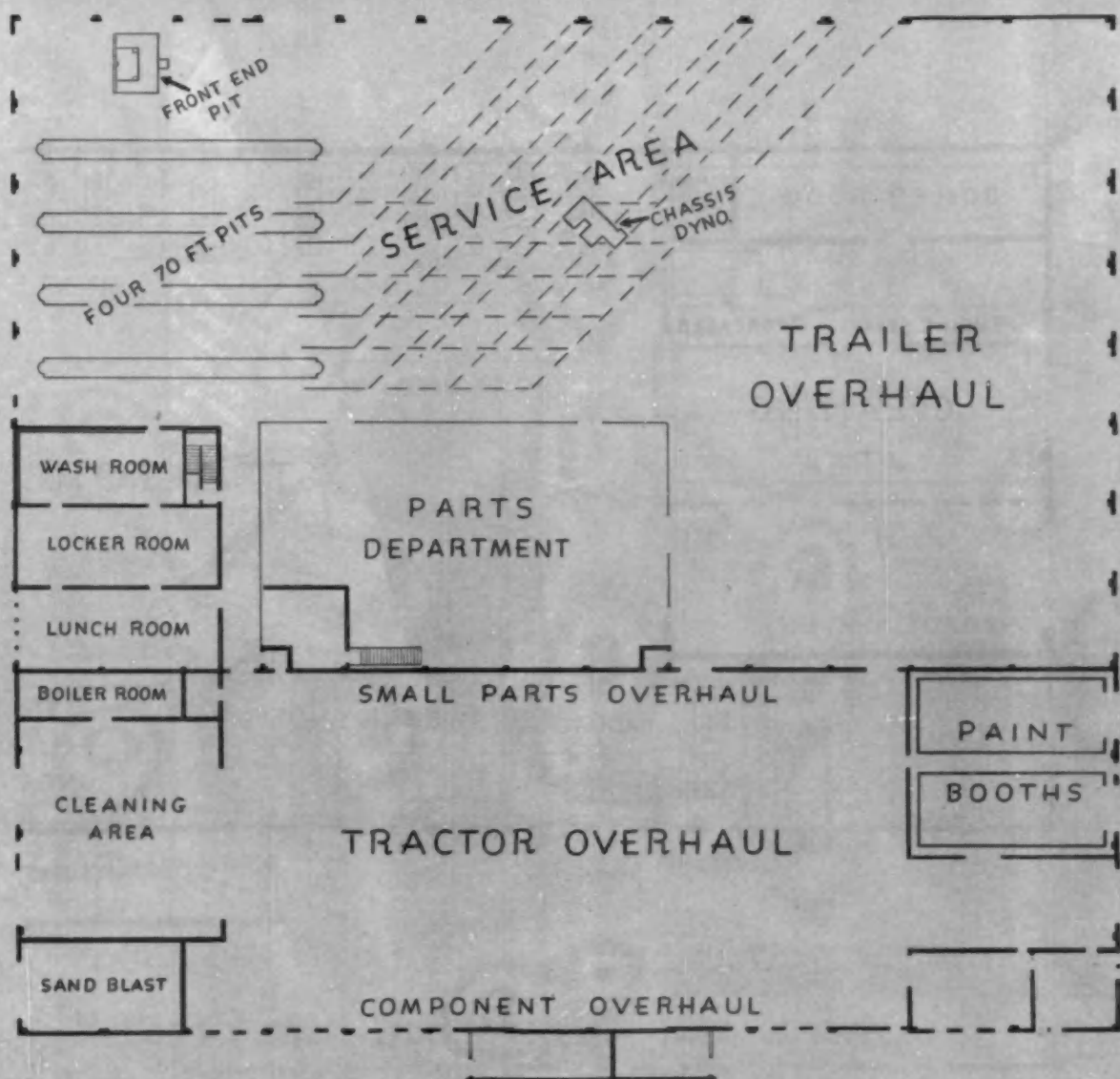
The shop is an important part of PIE's newly opened multi-million dollar terminal in Los

Angeles, which consolidates the operations of three former terminals. It is the fleet's principal maintenance base, headquarters for the company's Engineering Dept., and maintenance center for all equipment west of Denver.

The Maintenance Job

Assigned to service about 90 per cent of PIE's rolling stock (currently some 2900 units), the 68,000 sq ft shop has three prime jobs:

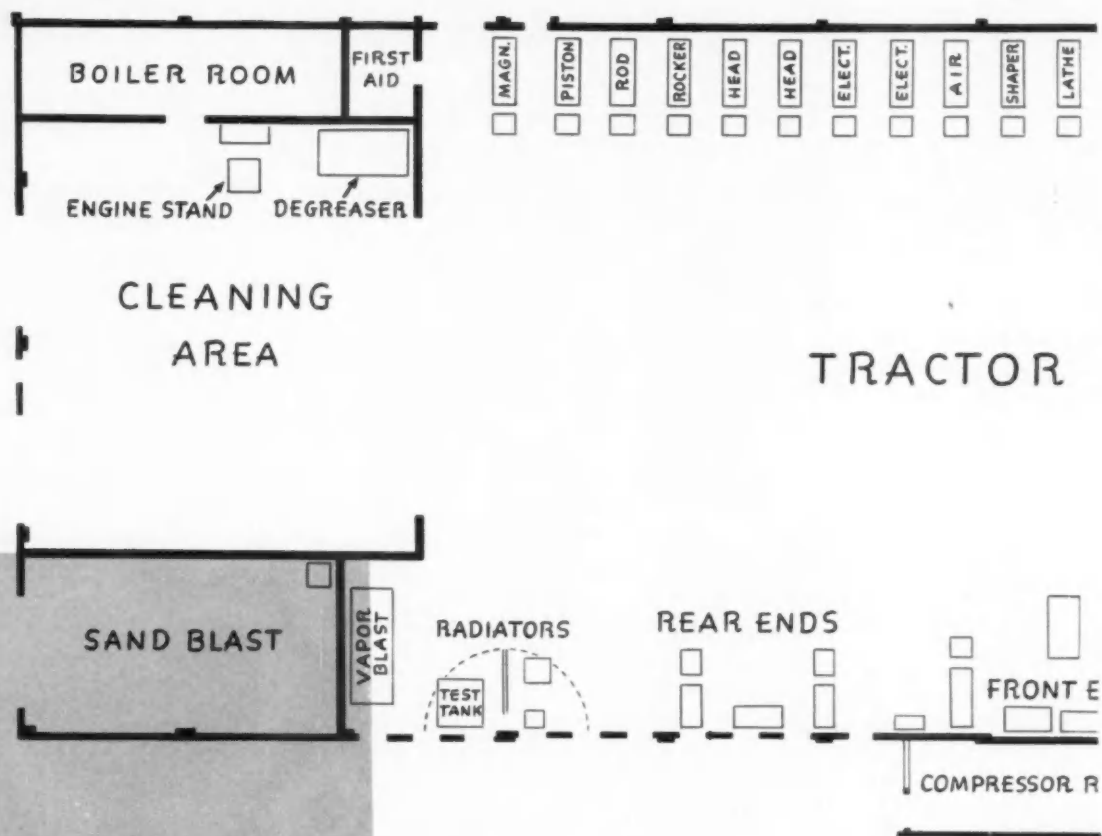
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▲ Floor plan of PIE's new maintenance headquarters shows general arrangement of facilities. Note lack of stalls in service and overhaul departments, angled service lines beyond pits

► These are the exits for the "angled" service lines, which extend beyond lube pits so equipment needing only routine service can bypass units which need inspection or repairing





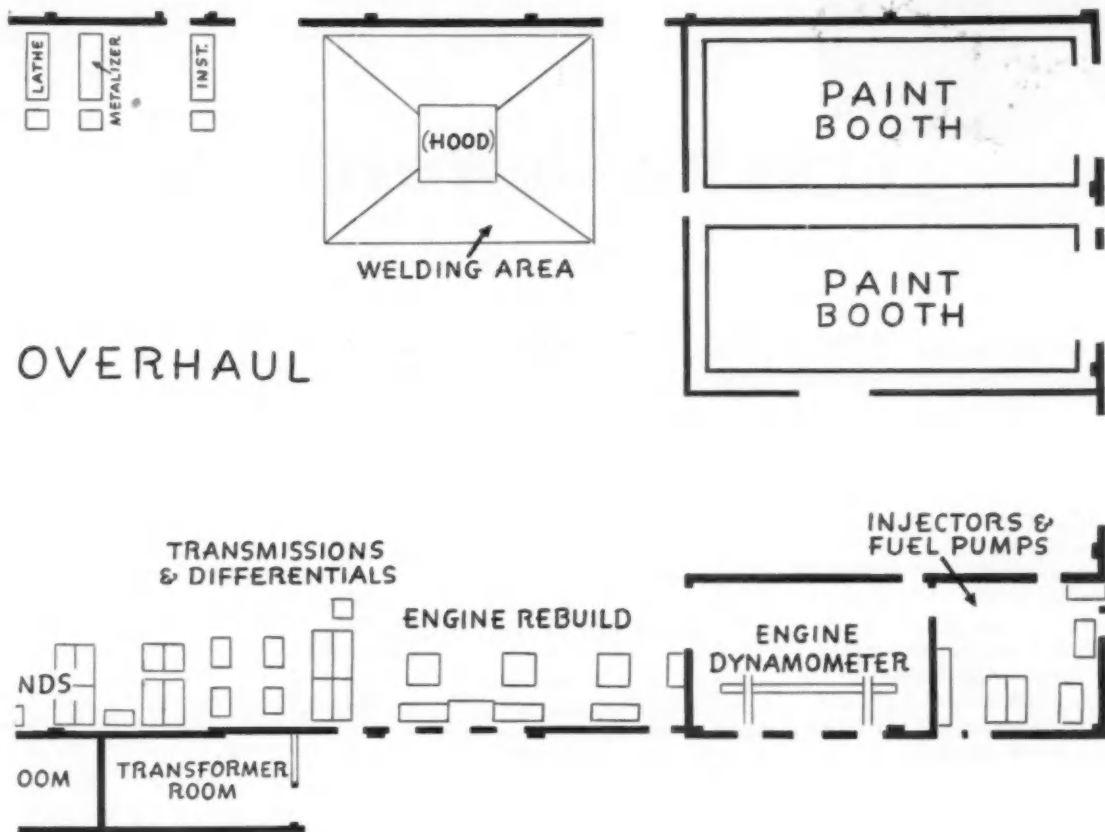
This is the tractor overhaul shop, with its aisles flanked by 17 "feeder" shops which repair assemblies

Dynamometer in tractor "Service" section can be read while mechanic in cab checks dashboard gages



Routine trailer servicing is performed in the terminal yard, using the self-powered "Yard doctors"





Nation's Biggest Truck Shop . . . Continued from Page 66

1. Handle lubrication and minor maintenance of pickup and line-haul equipment.

2. Perform all major maintenance on tractors.

3. Do all major maintenance on trailers.

Facilities are sufficient for overhauling upwards of three diesel tractors per day, put into service two reconditioned trailers, run up to 300 minor-service jobs every 24 hours.

Bigger than Denver

Comparatively speaking, the shop is about one-third larger than PIE's famed Denver installation. At Los Angeles, some 400-500 staffers, 300 of them mechanics, repair rigs. The Denver shops schedule only about 140 service jobs daily, employ at most 250 mechanics.

Whether in the shop's "Service" or "Major Overhaul" sections (and they're distinct), the aim is identical: process rigs as in a factory, with the rigs moving down production-maintenance lines. But while maintenance is essentially on "straight-line" basis (in one door, out the other, ready for the road), the Los Angeles shop's "Service" area has some departures.

For one thing, there are no stalls—and no fixed-position benches or tool boxes. Everything's mobile, designed to move right along with a rig's repair schedule. In short, there's nothing on the floor to impede the steady production-line flow of maintenance. Example: rather than install fixed benches, PIE has put into service some 250, all-steel caster-wheeled

(TURN TO PAGE 112, PLEASE)



ATA Workshop Session

**Madison riders assured safe, clean equipment
through careful attention to daily routines**

DDAILY SERVICE of our fleet of GMC diesel coaches is absolutely necessary to give them customer sales appeal. A bus rider expects and demands clean, efficient equipment and it is our job to see that he gets it and a little more.

When a coach comes to the garage our servicemen like to have the bus driver bring it to the pumps. The purpose of this is personal contact between the driver and the shop serviceman. Often a driver can explain some complaint a little more fully than he wrote on the daily equipment card.

Each coach has a Daily Equipment Card (Fig. 1) in a pocket in the area of the driver. It is the duty of each driver to mark down what time he took the bus and the time he got off. If he thinks that something is wrong with the coach, he lists the trouble above his name. Successive drivers may think the same, so they write "same as above." Our coaches have up to five drivers daily.

Daily Records Tell Tales




We feel that before some major trouble occurs, some tell-tale sign occurs. It is therefore our problem to record and interpret those tell-tales. To assist in this job, we keep the following daily records:

1. An accurate record of fuel and oil consumption. This is averaged for our inspection period of 1800 miles and helps the mechanics tell if major engine work is indi-

By Frederick Wessel

Superintendent of Maintenance
Madison (Wis.) Bus Co.

FIG. 1. Daily equipment report has separate space for each driver's notes

Equipment Report				
Bus No.	175	Date	Sept. 2, 1956	
This bus is in good order except as noted below:				
1st Driver	Time on	4:45	Time off	9:30
	 Signature			
2nd Driver	Time on	9:30	Time off	1:42
	 Signature			
3rd Driver	Time on	1:42	Time off	6:27
	Brakes pull left			
	 Signature			
4th Driver	Time on		Time off	
	Signature			
5th Driver	Time on		Time off	
	Signature			
Run	Miles	Fuel	Oil	Water

cated, such as rings or tune-up or injectors need changing.

2. An accurate record of the water consumption in quarts used. This is also averaged for the inspection mechanic. Water averages of less than 350 miles per quart usually indicate that some part of the cooling or heating system needs attention. This usually can be scheduled before we get into trouble.

3. A record of all light bulbs that are used on each coach. Again this aids the inspection mechanic and points to a possible faulty generator or regulator. If a series of bulbs are burning out on the dome circuit it might even point out a faulty or dirty switch.

CTOO, COL, ATOO

4. A record of CTOO and COL (Fig. 2). CTOO means compressor trap excessively oily. When the compressor trap is listed as double oily on two successive inspection periods, it usually means a compressor change. COL means compressor outside oil leak. Because of the nature of COL we must correct these leaks immediately as they are found.

5. An ATOO record similar to the above. ATOO means air tank extra oily. This record is taken daily and helps our servicemen and mechanics tell when some of our air units are beginning to leak and maintenance work is indicated soon.

6. A separate slip on each and

Stresses Daily Bus Servicing

**Good scheduling and parking procedures
save manpower for Portsmouth Transit Co.**

By C. R. Sawyer, Superintendent of Equipment
Portsmouth (Va.) Transit Co.

every brake complaint (Fig. 3). Because of its safety nature, every brake complaint of any kind is worked off immediately. This brake slip lists the fleet number, a list of the common brake complaints such as pulls left or right, brake howl, brakes slack, brakes grab. Provision is made on the slip for the lining thickness by wheel and also the slack adjuster travel by wheel. Space is left for remarks by the mechanic and his signature.

7. A record of interior and exterior wash jobs. We do not have a mechanical washer, so the record is very important. Each coach is washed on the inside once a month. Coaches are washed on the outside about every four days.

All of these daily service records are available to the inspection mechanic. He is not cold when he gets the coach for inspection. At his finger tips he has all the information that the daily servicemen have been able to find out about this particular coach. He can now give it a good, short, economical inspection. In addition all our coaches are assigned to a certain run. This makes for ideal inspection period plotting.

Through the Daily Service

Now to take a coach through the daily service lane. Working as a team, three men converge on the coach when it is pulled up to the pumps. The sweeper steps inside

(TURN TO PAGE 124, PLEASE)

IN PORTSMOUTH we have a total of 65 buses of various ages, models and types. Our daily schedule requirements in the morning are 58 buses, of which 23 are AM trippers. Upon return to our parking lot they are parked by the bus operator in designated spaces and are not serviced or moved unless the operator makes out a Trouble Report, or unless one has to be used as a replacement for a bus out on the line.

Parking of buses by the operators eliminated use of hostlers who formerly required some 3½ hours daily at a cost of \$5.34. It also saves approximately 10 gal of gasoline a day.

In the evening we operate 24 trippers which upon return to our parking lot are parked by the bus operator in marked-off lanes numbered 1 through 5—the even numbered buses are parked in even numbered lanes, the odd numbered buses in odd numbered lanes. The reason for such parking will be covered later. Regular buses returning to the parking lot after completion of their late runs are parked similarly in the numbered lanes by the bus operator.

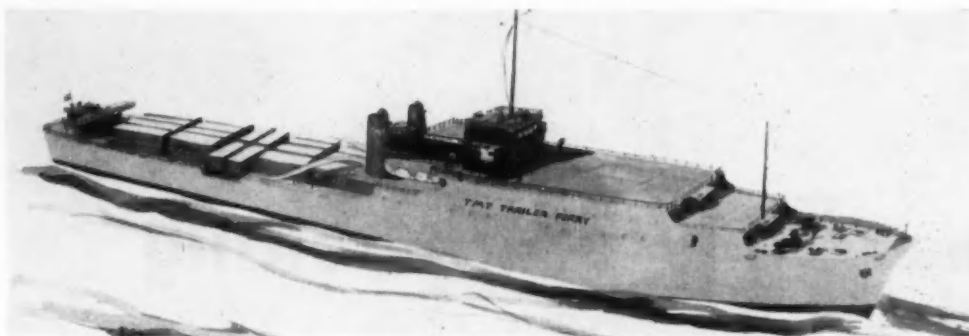
Service Facilities

Our service facilities include:

1. Service station with two dispensing pumps to permit tank filling from either side of the bus.
2. Oil dispersing unit with an oil flow meter unit. Oil comes from a 2000 gallon storage tank located five feet above the floor level to facilitate oil flow. Incidentally, this storage tank is located in a room that is kept heated in winter to keep oil fast flowing.
3. Water Hose with an automatic cut-off valve installed on a weight balancing trolley at each gas pump.
4. An air line is also available as well as battery water.
5. A Cyclone cleaner with its catch-all trash room, 10 ft wide, 8 ft long and 13 ft high.

(All of these items are located in and about the service station

(TURN TO PAGE 128, PLEASE)



The "TMT Carib Queen," world's largest self-propelled trailership, carries 92 trailers

TMT Trailerships Span

Business booms for roll-on/roll-off



Stern view of the "Carib Queen" shows the double ramp through which trailers are loaded on the lower deck

"Trailerloader" system on "Carib Queen" uses dollies to move trailers, eliminates use of tractor on ship



▼ A NEW CHAPTER in the story of "Operation Fishyback" is due to open soon with the launching of the world's largest and fastest self-propelled trailership, the "TMT Carib Queen" at Jacksonville, Fla., some time before the end of the year. The occasion will mark another forward step for TMT Trailer Ferry, Inc., pioneer of the roll-on/roll-off movement of highway trailers on ocean-going vessels.

Growth of the TMT operation has been only slightly short of fantastic. Organized in May, 1953, with \$500 capital and a "big idea," the company has since established itself as the world's largest off-shore roll-on/roll-off trailership operation. Under President Eric Rath, its founder, the company's assets grew from \$350,000 to \$2½ million during 1955. Gross business volume was about \$500,000 for the first quarter of 1956, is expected to total \$2½ million for the full year. With the operation continuing to expand, Mr. Rath expects gross revenues to range from \$8-\$10 million in 1957.

Varied Operation

With the launching of the "TMT Carib Queen," the company will have a fleet of 11 vessels, including another "Queen" type vessel, which will soon be under construction. TMT also operates two truck fleets, one in Florida, the other in Puerto Rico. Fleet equipment now includes more than 500 trailers, tractors, straight trucks and other rolling equipment.



Main terminal at Jacksonville, Fla., has facilities for loading and unloading trailers with a minimum of delay

Caribbean

trailer delivery. Here's how it works

Heart of the operation is the roll-on/roll-off service linking Florida and Puerto Rico; with the heaviest volume of traffic moving between the company's main United States terminal at Jacksonville, Fla., and San Juan, P. R. This is now handled by three converted LST's (Landing Ship Tank). Further expansion of service to Venezuela and other Caribbean ports is scheduled before the end of this year.

Other phases of the operation include: A regularly scheduled auto ferry which sails on Mondays, Wednesdays and Fridays, between Key West, Fla., and Havana, Cuba; inter-island roll-on/roll-off service between Puerto Rico and the Virgin, Windward and Leeward Islands; mail delivery within the Commonwealth of Puerto Rico and mail delivery between Puerto Rico and the Virgin Islands.

Motor Carrier Subsidiaries

Trans-Caribbean Motor Transport, Inc., a subsidiary of the parent company, operates out of Jacksonville through Florida as a common carrier of general commodities by motor vehicle, authorized by the Interstate Commerce Commission. It arranges interline agreements with other motor and rail carriers for delivery to points beyond its routes. It also accepts interlined trailers for delivery to Puerto Rico.

On the islands of Puerto Rico, another subsidiary handles the trucking operation. This is trans-Caribbean Motor Transport, Inc., P. R., authorized as a



Photo above shows a trailer being unloaded from lower deck of "TMT Georiga," one of three converted LST's now in service. Photo below shows trailers in place on upper deck. LST's can carry 55 trailers, 20 autos. They were used to pioneer Jacksonville-San Juan roll-on service

motor common carrier by the Public Service Commission of the Commonwealth of Puerto Rico. This company has two divisions: Transfer, Moving and Terminal Service of Puerto Rico, which acts as the Allied Van Lines agent on the island and TMT trailer Express.

The shipping phase of the operation is handled by two other subsidiaries, both authorized by the Federal Maritime Board. Trailer Marine Transportation, Inc., is authorized as an intercoastal off-shore water carrier

(TURN TO NEXT PAGE, PLEASE)

TMT Trailerships Span Caribbean

Continued from Page 73

and operates the auto ferry service between Key West and Havana through its TMT Auto Ferry Division. TMT Lines, Inc., is authorized as a contract carrier and charter operator.

Pioneer Venture

TMT has grown because it offers the most efficient and economical transportation service between the Caribbean islands and the U. S. mainland. After experimenting with various methods, company officials determined that the roll-on/roll-off type of operation offered the most effective method of handling cargo. As a pioneer in ocean-going roll-on/roll-off service, the company has had to solve many difficult problems.

Among them: how to tie-down and stabilize trailers for the sea voyage; construction of special loading ramps both on the vessels and ashore, development of facilities for fast loading and unloading of cargo by simultaneous action on all decks, and adequate arrangements for the use of part of the ships for general cargo in addition to trailers. Solution of all these problems has been leading up to the launching of the "TMT Carib Queen," the world's largest and fastest self-propelled trailership, which will become the flagship of the operation.

Ship Facility Details

The 8000-ton, twin-screw "TMT Carib Queen" measures 475 ft in length, with a 72-ft beam. It is powered with two Westinghouse steam turbines generating 6300 hp. with 2000 hp in reserve. It will carry 92 trailers, 97 automobiles and 500 tons of general cargo, as well as specialized liquids in integral tanks. Five double staterooms and two single cabins will accommodate 12 passengers. It is the first such ship to be granted Title XI Federal Mortgage Insurance by the U. S. Maritime Administration, and the first trailership to be declared essential to national defense.

Recently TMT purchased another vessel in the "Carib Queen" class. The vessel is an LSD (Landing Ship Dock) which will be converted into a sister ship to the "Carib Queen" and will be named the "Florida Queen."

The "Florida Queen" was purchased from the National Container Corp. Modification is expected to begin soon, with conversion scheduled to be completed

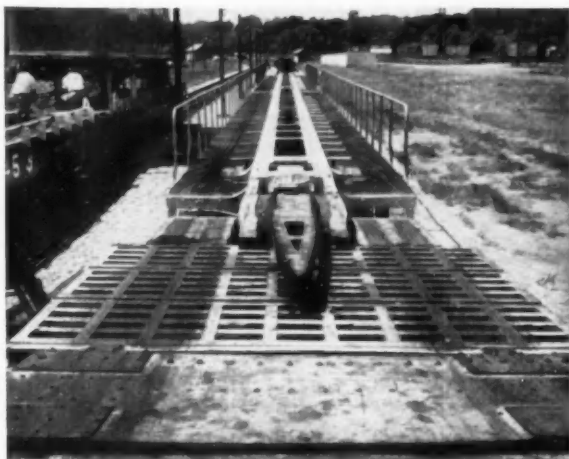
in 1957. The vessel is presently under foreign flag and when ready for service will be brought under the American flag.

The "Florida Queen," like her sister ship is 475 ft long with a beam of 72 ft. With a capacity of 92 over-the-road highway trailers, 20 smaller size dispatch vans and about 100 automobiles and 12 passengers, the vessel will also have special built-in tanks with a capacity of 1000 tons to carry vegetable oil. The oil will be loaded or unloaded simultaneously with the "roll-on" or "roll-off" of trailers, dispatch vans and automobiles.

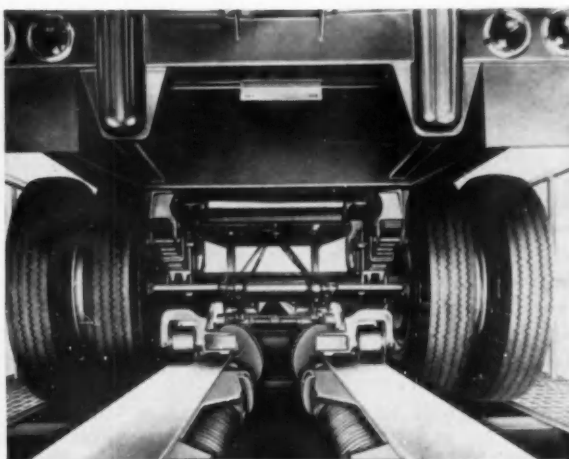
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Specially designed for inter-island service in the Caribbean, TMT's "Seatruck Lloyd" can carry four regular trailers or nine smaller vans like the one shown in the lower photo. The 17-ft tandem trailers were custom-built by Wells Cargo Co. for use on narrow Virgin Island roads and streets





This end view of the new piggy-back car shows center sill which acts as guide for centering trailers. Tapering rail in foreground guides trailers into alignment with sill



With trailer tied down, tires straddle "free" 8 in. below center sill, clamps firmly grip flanged wheel mounts, shock absorbers on rail car protect trailer from jolts

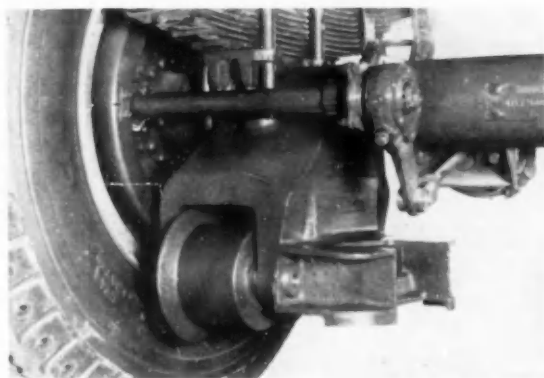
New Trailer Loading System Speeds New Haven's Piggy-Back

VA NEW SYSTEM for handling trailers in piggy-back service is now being used by the New York, New Haven and Hartford Railroad to improve its "Trailer" service. Using a new type of rail car and simple locking devices, it makes it possible to load and tie-down trailers in position in about 1½ minutes, compared with about six minutes for the same routine using screw jacks, chains and chocks on a conventional flatcar.

Patterned after the system used by the French National Railroads since 1948, the New Haven's new method resulted from a joint effort by the railroad, the motor common carriers which use "Trailer" service, and Piggy-Back, Inc., New York, an affiliate of the "Compagnie Francaise de Material de Chemin de Fer," one of Europe's largest railroad car builders. The equipment was designed and developed by Piggy-Back Inc., and the first order of 200 rail cars for the New Haven is being built by Pullman Standard Car Manufacturing Co. at Butler, Pa.

79-Ft. All-Welded Flatcar

The 79½-ft rail car is of all-welded construction, consists basically of two 30-in I-beams, spaced so their top flanges form a 39-in. wide sill or track along the length of the center of the car. To comply with



This close-up of trailer wheel shows the loading dolly attached to the axle. Flanged wheel rolls smoothly on rails of piggy-back car. Loading tractor also has dolly

ICC safety requirements, the car is equipped with catwalks and hand rails. Connecting I-beam tracks, which bridge the gap between adjacent cars during loading or unloading, lock in a vertical position at the end of the car when not in use. Several pairs of

(TURN TO PAGE 138, PLEASE)

CAREFUL SCREENING of drivers before hiring them is paying dividends for the Willett Co., Chicago rental truck operator and cartage contractor.

To drive for Willett, a man must have a minimum of five years' experience behind the wheel of a commercial vehicle, and must have at least two years' experience driving the type of equipment which Willett expects him to handle. These basic requirements alone eliminate nearly half of the 700 men who apply for driving jobs with Willett each year. Another 30 per cent are disqualified by one of the battery of three tests which Willett uses to further select only those men who are apt to have safe driving records.

Proof that the screening, and other accident-prevention activity, is paying off: between 1953 and

1955 Willett cut its accident frequency by 43 per cent.

Initial Interview

When a man applies for a job as a driver with Willett, he fills out a standard application form which Safety Director Al Haase uses as the basis for the initial interview. The form gathers general information about the driver, including his previous driving experience and accident record or safety awards. Haase discusses the data on the form with the driver, obtaining such additional details as reasons for leaving previous jobs, how long he's been in the union, and the circumstances surrounding any injuries or illnesses. He makes a special point of checking on the length of time the man has lived at the address given on the questionnaire, since a man who shifts his residence

frequently may be a "floater," and hence an undesirable employee.

After the interview the applicant takes a physical exam which lasts about 15 minutes. Safety Director Haase conducts a test of the man's visual acuity, field of vision, depth and color perception. The company's doctor checks the man's general physical condition and looks for any chronic illnesses or injuries. If the applicant passes these tests, his references are checked by phone or telegraph, and he proceeds to further, more searching tests.

Driving Test

The rest of the screening process consists of a behind-the-wheel test by a specially trained examiner, an attitude test and an intelligence test.

In the performance test, the examiner works with a check-list which rates the driver on approximately 80 points. Among other things, the examiner checks whether the driver: disengages the clutch when starting the engine, warms up the engine before pulling away, runs long enough in each gear to prevent engine labor, drives too fast or too slowly for conditions, etc. There are nine test categories in all, plus a section for the examiner's general observations.

Test Fits Job

Drivers are tested in the same type of vehicle they will be operating as a permanent employee. Length of the test varies, depending on the job the driver will be doing. A new man hired to drive busses, for example, spends three days with the examiner. Drivers assigned to the transport division—which operates tankers that carry liquid fuel and chemicals—go through a 6-day training period behind the wheel, while drivers of city pick-up and delivery units are tested for two days.

Originally intended only for new employees, the performance test has proved effective in improving the ability of some of the drivers who have been with the fleet for a number of years. In

Willett Drivers Must Prove They Can Drive

Only experienced drivers need apply. Even so, Willett screens them, tests them, then trains them in a five-prong program that's reduced fleet's accident rate 43 per cent

By Phil Hirsch

1950, the company analyzed its safety record, found 15 drivers who were having more than their share of the fleet's accidents. While these accidents seldom resulted in damage of more than \$50, they were occurring frequently, with some of the unlucky drivers filling out as many as three accident reports a month. To remedy this problem, the company decided to give these drivers the same performance tests being used on new men. A few months ago, Willett handed out awards to its drivers with five years of accident-free driving. Among those receiving the awards were all of the 15 drivers who had been in hot water six years previously.

Driver Errors

Improper shifting is probably the fault most frequently uncovered among new drivers, Haase reports. Typically, they drive at low speeds in high gear, or fail to gage speed with traffic lights and, as a result have to stop too often. These practices, of course, increase wear and tear on the engine appreciably.

Willett's safety director reports that before the performance test was launched in 1949, "We had cases where a new clutch was put in a truck one night and three or four days later, the same truck would come back to the shop with the clutch burned out." Since the program has been in effect, such troubles have disappeared.

Other mistakes often uncovered by the tests, among new drivers as well as regular ones: following the vehicle ahead too closely, improper backing, improper turns. All of these practices accounted for a goodly percentage of the company's accidents prior to 1949. Figures are lacking on such misdeeds today, but company officials believe the number is far less.

Trained Examiners

The examiners who conduct Willett's driver testing program are given an intensive 26-hour training course before going out with their first drivers. Examiners' jobs go to those operators



Willett's new drivers must pass a series of physical and mental tests, then they're turned over to specially-trained instructors for in-traffic testing and training on actual trucks

Faulty shifting is most frequently found error, gets prompt correction from instructor who must have a top safety record and 26-hour course before qualifying as a trainer



from the company's regular ranks with the best safety records.

Part of the 26-hour course is handled by Haase, who lectures prospective examiners on various psychological problems they'll run into. A typical problem is posed by the veteran company driver who's being run through the test because he's had some accidents. Often, this type of individual feels he knows all there is to know about driving, and refuses to take

advice, particularly if the examiner is a younger man.

Ways and means of handling these and other "characters" are demonstrated by means of role-playing: one prospective examiner takes the part of the veteran driver, while another tries to correct his bad habits. Haase, meanwhile, looks on and checks the quality of the performance.

The safety director feels that
(TURN TO PAGE 132, PLEASE)



Parts removed during servicing can be rested on a plywood rack that fits between back of cab and fifth wheel



Self-developing cameras are used to photograph damaged equipment so shop foremen can decide on repairs



Plexiglass wall and plastic tabs with numbers on both sides make an effective control board that can be seen by dispatcher and by operations managers

New Shop Spawns

New vehicles and facilities sparked this set of

▼ FOR YELLOW TRANSIT Freight Lines, Kansas City, Mo., the move to a consolidated maintenance headquarters early this year (See: "Yellow Transit . . . Swaps Ten Shops for One," Sept., page 66) offered it an opportunity to evaluate some of its shop methods and to develop some new ones. You can see some of the results in the accompanying photographs, may be able to use some of these hints in your own shop.

Dispatch Control

Keeping track of tractors and trailers for dispatching purposes is easy with the transparent plexiglass location board which takes up an entire wall of the dispatch-

By L. H. Houck

er's office. Plastic tabs for each tractor and trailer hang on tabs on the wall, which is marked off to indicate terminal locations.

The number of the unit appears on both sides of the plastic tab so it may be seen by the dispatcher and by the regional operations managers and their assistants on the other side of the wall.

Parts Rack

With the new Kenworth tractors the fleet's using, there's good working space for mechanics between the right front wheel and

the frame, especially for running the overhead routine.

In many shops, as a mechanic removes parts he lays them on the floor. At Yellow Transit, a ¾-in. piece of plyboard, cut to fit the space between the back of the cab and the fifth wheel, is available for resting all parts removed from the unit and due to be replaced. The board keeps parts safe from dirt on the floor, saves a lot of back bending for the mechanic.

Using Cameras

In reaching out for new methods, Yellow Transit equipped its shop foreman and other key men in the system with self-developing Polaroid cameras with flash at-



Permanent mounting with removable plate saves wear and tear on cab when replacing or changing license plates



Shop-made nozzle attached to a high-pressure air line is a useful tool for cleaning dry-type air cleaners

Better Methods

shop hints from Yellow Transit Freight Lines

tachments. The cameras are used to photograph damaged tractors and trailers, with the photos being a big help in deciding whether equipment is worth bringing into the shop for repairs.

Proof of the cameras' value: the shop received a call from Texas that a certain unit was a total wreck. The shop foreman asked for photographs of the unit from various angles, then when he saw them he was able to determine that the rig could be repaired and put back into service. This one decision covered the cost of the camera equipment.

License Holders

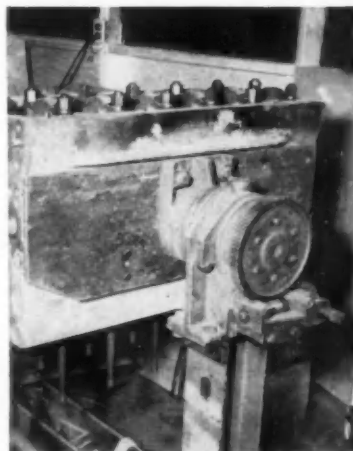
Saving wear and tear on trac-

tor cabs whenever running plates or licenses have to be installed, removed or changed, a simple shop-made plate holder has proved valuable.

It consists of a metal panel and frame which is permanently mounted on the rear of each tractor. Plates are mounted on a sheet of thin steel which slips into the frame and may be easily removed whenever changes are necessary.

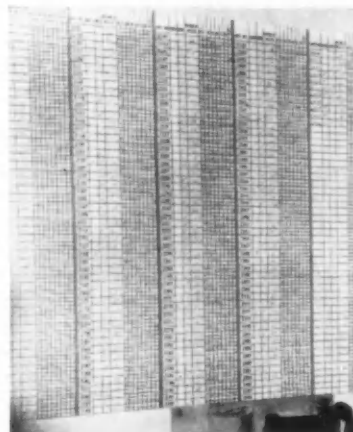
Cleaning Air Cleaners

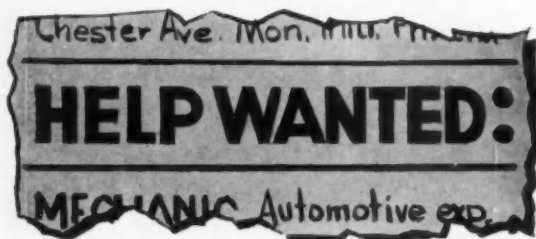
Dry-type air cleaners are used on the new diesel engines with which the fleet is now equipped. To clean them, the shop staff took some aluminum angle, made a spe-
(TURN TO PAGE 146, PLEASE)



Engines stands on hand needed only a steel plate to make them suitable for holding the fleet's new diesel blocks

Schedule board in shop office shows when tractors are due for service, when previous PM work was performed





HELP WANTED: More and Better

By Jack Colgan

Special Features Editor

ALARMING NOW, and growing steadily worse, the shortage of automotive mechanics is scheduled for discussion this month at the SAE's National Transportation Luncheon. Speaker will be Professor Amos E. Neyhart, Administrative Head of the Institute of Public Safety, Pennsylvania State University.

Writing in advance of the presentation, it's impossible to predict what answers Professor Neyhart will offer to solve the problem. You can be sure of one thing, though. He won't come up with a solution that will work an over-night miracle. For this is a problem that's been growing for a decade. It's a problem that's big and complex now, bound to get worse before it gets better.

How Big a Shortage?

As a fleetman, you have a stake in the solution. For you the mechanic shortage is more than a problem to be discussed at meetings. It's a problem you face any time you try to hire new mechanics, and it's a factor affecting the attitude of the mechanics you now have. As the shortage grows, you'll have to pay more for additions to your staff, you'll probably have to pamper the mechanics you now have if you want to keep them. A point to remember: There's a general shortage of men with mechanical skills, so you're

competing for their services not only with other automotive shops, but also with other industries which are offering high wages and other fringe benefits for men with mechanical ability.

You can get a rough idea of the growing shortage from the chart at right. In 1940 there were some 442,000 automotive servicemen for the nation's 32,035,424 vehicles—a ratio of about 72 vehicles per man. By 1950 there were about 678,000 mechanics for more than 48 million vehicles, and there are now more than 700,000 mechanics, but there are more than 61 million vehicles, or about 87 vehicles per mechanic. Vehicle servicing has grown more complex, so that, in terms of the work to be done, the shortage is even more serious than the figures indicate.

Shortage in Know-How?

The Service Managers' Committee of the Automobile Manufacturers Assn., which has been actively searching for solutions to the problem for several years, estimates that from 45,000 to 50,000 new mechanics are needed each year to keep service shops properly manned. But, the committee points out, fewer than 10,000 recruits are actually entering the field each year. At this rate, with a vehicle population of more than 81 million predicted by 1965, there will be an average of about 103 vehicles per mechanic. Putting these figures in another way: Unless something is done to increase the number of mechanics being trained, there will be a shortage of some 141,000 mechan-

ics in 1965 even if the present ratio of 87 vehicles per mechanic were desired. And the National Standards Parts Assn., another group actively working on the problem, estimates that service shops could absorb 100,000 mechanics right now.

Most shop managers will agree that there's more to the problem than a shortage of bodies. Many so-called new "mechanics" fall far short of desirable standards of training and ability. So there's an obvious need for improving the training students get in automotive technical schools and of increasing the opportunities for further on-the-job training.

Education Needed

Major steps have already been taken to improve this situation, with the Automobile Manufacturers Assn. and the National Standard Parts Assn. both working in cooperation with educational authorities to improve the situation in the schools. One result: a joint committee of members of the automotive industry and representatives of the American Vocational Assn. has developed a series of recommendations on the various aspects of automotive service instruction in the schools. Designed for use by local educational authorities, the recommendations cover student counselling, shop layouts and equipment, course content, industry cooperation, and teacher training. The recommendations have been published in booklet form and have been distributed to educational authorities across the country.

Mechanics

How is the problem in your shop? Even if you are satisfied with your present staff, you will have to meet stiff competition in the future to keep your force adequate. Why? Fewer mechanics, more vehicles coming

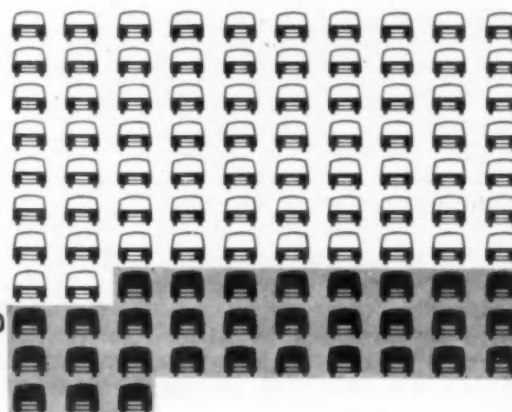
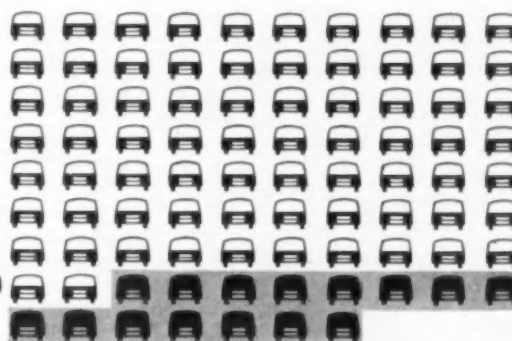
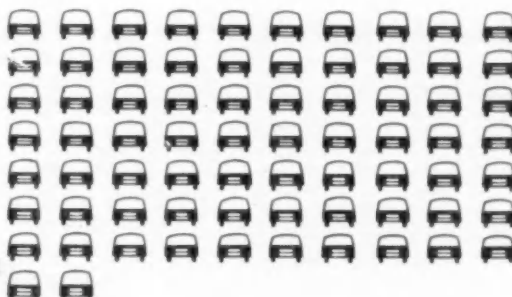
Other activities by equipment manufacturers in the way of solving the problem at the vocational school level have included: providing schools with materials about the automotive service industry for use in student vocational counseling; providing school shops with engines, chassis, parts and service equipment, as well as service manuals, charts and books; inviting teachers to service schools and establishing summer workshops for teachers; encouraging dealers to cooperate with school officials in their local communities.

You'll benefit to some degree from these activities, but it's worth remembering that most of them are designed to recruit trained talent for the manufacturers' dealers and distributors.

In-Service Training

In addition to the activities at school level, all vehicle manufacturers and a number of parts and equipment manufacturers carry out extensive training programs for mechanics who are already employed, either by their dealers or in their customers' shops. Many fleets now benefit from these sessions, in which mechanics can become familiar with new model changes and the latest service techniques and equipment.

Most elaborate of these programs is the one carried on in General Motors' 30 training centers throughout the country. Aimed primarily at helping mechanics within the GM organization, the program trained 106,000
(TURN TO PAGE 150, PLEASE)





Above is theme of December vehicle exhibit, first national show since 1940. New truck displays will occupy entire first floor

▼ WHILE the theatrical profession will be getting ready to close another season on New York's famed Broadway this December, a few blocks away at Columbus Circle the trucking industry will be staging the greatest spectacle it has ever presented under one roof as the first National Automobile Show in 16 years gets under way at the New York Coliseum, the largest exposition building of its type in the world. The show, which is being sponsored by the

1957 Passenger Car Preview

By Len Westrate, Detroit News Editor

At the National Auto Show look for completely new styling on 10 passenger car makes. Others will have face lifting from moderate to major.

Newly styled makes will be 1½ to 5 in. lower. One will have a roof line height of about 55 in. Several will be on 14-in. wheels with larger, lower pressure tires. Glass area will be larger with curved side windows in one line. For the first time in production cars, there will be a compound or wrap-over windshield carrying glass further into the roof. Dual headlamps will be optional on some.

There will be many changes in suspension systems including torsion bars on the front end, greater use of ball joints, better valving in shock absorbers, more rubber bushed parts, an air-cushioning device and one full air suspension system.

Lowered roof lines will bring changes in frame construction with wider spacing of side members to permit recessed floors. Drive lines also will be flattened out or lowered.

Horsepower will continue up with the top at close to 360. To get it, displacements will be up and compression ratios as high as 10.5 to 1. A modified fuel injection system will be offered by one volume producer, strictly as an optional feature.

Gadget items will include power-operated vent windows, electric door locks, an AM-FM radio to pick up TV sound and possibly more hi-fi record players. You may even find a "disposal" unit for grinding up cigarette butts.

Prices will be higher but no one is saying how much. Volume lines could well be up \$75 to \$90 with somewhat higher boosts on more expensive models.

Eleven Truck Makers Ready Exhibits for

Automobile Manufacturers Assn., will be held from December 8 through December 16.

Fittingly, the overall theme of the show will be "America on the Move." The theme, to be amplified in a fabulous stage presentation, performed by topflight New York show personalities and entertainers, will embody the spirit of the automotive industry in America and portray the great size and scope envisaged for the 42nd National Automobile Show. Attendance is expected to be the greatest ever to view an auto show.

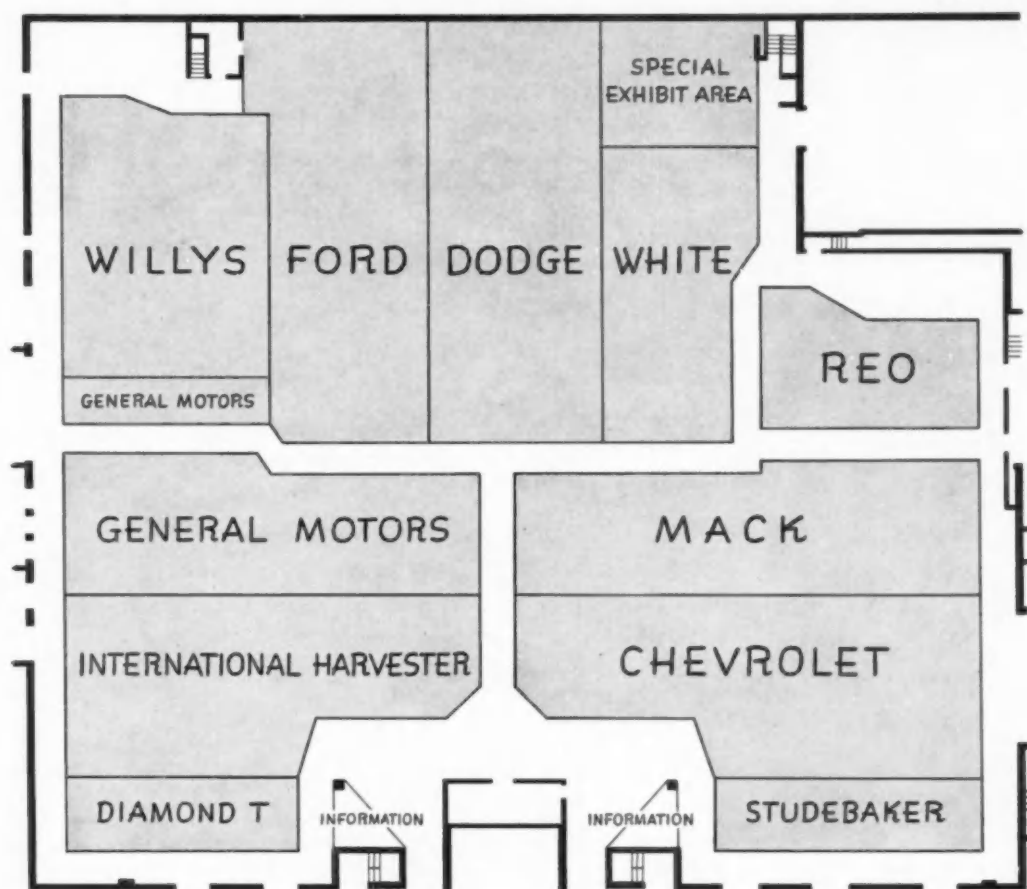
NATIONAL

From the turn of the century to World War II, the National Automobile Show was an annual event of world interest. It was last held in 1940, at New York's old Grand Central Palace, and was not resumed after the war largely because of the lack of a suitable ex-

hibition building. The December show will be 3½ times larger than any ever held before.

One Floor for Trucks

Probably at no other time in the history of automobile shows have trucks been given such prominence



Space allotted truck exhibitors is shown on above diagram of first floor of the New York Coliseum where show opens on December 8, closes on December 16

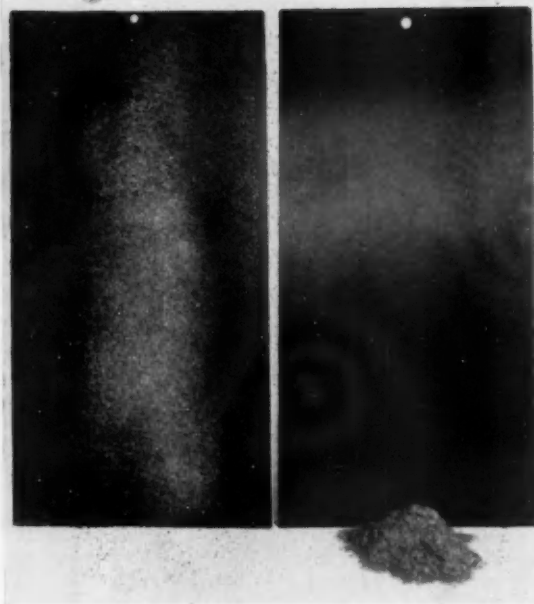
AUTO SHOW

as they will get at the forthcoming exposition. The array of trucks, equipment and special attractions to be displayed by 11 truck manufacturers will occupy the entire first floor of the 4-story building, or about one-third of the total space for the whole show.

Truck exhibitors will include Chevrolet, GMC, Diamond T, Dodge, Ford, International Harvester, Mack, Reo, Studebaker, White and Willys. Although truck manufacturers will have introduced their 1957 wares individually
(TURN TO PAGE 122, PLEASE)



Show site, the New York Coliseum, is brand new, cost over \$35 million. It is located between 58th and 60th Sts., facing Columbus Circle, New York City



Fast Drying Vehicle Finish

SHERWIN-WILLIAMS CO. announces its new "Exlon" vehicle finish said to combine lacquer speed and enamel gloss. SW says tests show it dries fast, is easy to apply, and is wrinkle-free.

Illustrated is result of a "flock test." Panel at left was sprayed with conventional enamel, the one at right with the new finish. Forty minutes later, flock was sprayed on both panels. It stuck on the still-wet enamel, was dusted off the dry "Exlon."

Tests were conducted in some 25 refinishing shops from Minneapolis to Miami and from Boston to Los Angeles, under varying temperature and humidity conditions. "The only variation we found," says SW, "was that in shops where air temperature was below 70 deg, Exlon required up to an hour to dry completely. Where temperature was higher, vehicles could be moved out of the paint room in as little as 20 min after the second coat was applied.

Application Speeded

"It is extremely fast in application, too," claims SW. "Two coats can be applied in only 20 min using standard equipment and methods." Exlon air dries, and baking is unnecessary.

Other advantages cited by SW: Exlon is practically odorless and shows an exceptional absence of sticky overspray and spray dust. The latter characteristic stems in part from the formulation of the finish, and in part from the low air pressure (40 lb) at which it is sprayed.

For further information on this new finish, circle P 50 on the postcard on page 52.

Two New Light Weight Trucks

NEW LIGHTWEIGHT models for additional payload have just been announced by Autocar Division, The White Motor Co. These new models, originally developed for the West Coast, have been made available for heavy-duty applications in all parts of the country, with either axle-forward or axle-back models.

The lightweight models—DC-102 TL (33,000 lb GVW-76,800 lb GCW) and DC-10264L tandem axle (50,000 lb GVW-76,800 lb GCW)—have all-aluminum driver's cab




which features lightweight aluminum skin over a girder-type frame of aluminum alloy. Formed channels are heliarc welded. The aluminum skin is riveted to the frame. Construction permits flexibility and stress absorption, accomplishes a weight savings of 20 per cent in the cab structure.

Aluminum also is employed in various parts of the engine, in the chassis cross-members, transmission case and cover, fuel tank, front and rear axle hubs, hood and front bumper. Many of these parts are of all-aluminum castings or weldments. Wheels are of forged aluminum.

Light Weight Specifications

Model No.	DC-102TL	DC-10264L
GVW in lb	33,000	50,000
GCW in lb	76,800	76,800
Wheelbases in in.	159-99 175-116 $\frac{3}{4}$	199-229 $\frac{3}{4}$ 211-229 $\frac{3}{4}$ 223-229 $\frac{3}{4}$ 235-269 $\frac{3}{4}$
Frame—standard	9x3x $\frac{1}{4}$	10 $\frac{3}{8}$ x3x $\frac{1}{4}$
optional	10 $\frac{3}{8}$ x3x $\frac{1}{4}$	10 $\frac{1}{2}$ x3x $\frac{1}{4}$ /15
Note: Optional frame mandatory on wheelbases over 211 in.		
Axles—front	FE-900	FE-900
rear	232-C	SQHD with Hendrickson suspension
Weights in lb—front	6200	6500
rear	4500	7050

Note: Without front wheel brakes. Add 135 lb for front wheel brakes.



*SURE, POWER STEERING
MAKES THE JOB EASIER.
BUT IT'S THE ADDED SAFETY
THAT COUNTS MOST.*

*OUR POWER-STEERED
RIGS STAY ON SCHEDULE
BETTER, TOO.*

*EITHER WAY,
POWER STEERING MAKES
GOOD BUSINESS SENSE.*

THE CASE FOR POWER STEERING ON TRUCKS!

The trend to power steering on trucks is based on one very practical reason—operators of trucks equipped with power steering have invariably found that the added safety and greater operating efficiency of their vehicles have demonstrated that power steering is indeed a sound investment.

Truck drivers using power steering report less tension and fatigue in normal driving and appreciate the positive control that blocks road shock from chuck holes and prevents loss of control if the truck is forced out on a soft shoulder.

The dispatcher knows the importance of regularly maintained schedules. He is quite aware that with power steering drivers are more relaxed and are better drivers than tired drivers. Thus, power steering not only reduces the hazard of road accidents, but helps the driver to maintain established schedules through better vehicle control.

In short, power steering, by saving time and money, contributes materially to a more profitable operation.

Truck manufacturers are always eager to offer their customers features

that will make truck operation safer and more profitable and, at the same time, give their dealers every selling advantage.

That's why more and more truck manufacturers are offering performance-proven Bendix* Power Steering as original factory equipment.

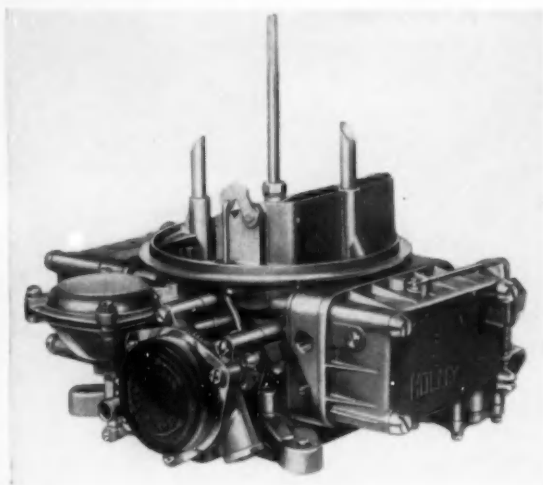
If you would like to know why power steering for trucks is perhaps even more logical than power steering for passenger cars, we have prepared an interesting folder on the subject.

Write for your copy today. We think you'll be convinced.

*REG. U.S. PAT. OFF.

Bendix PRODUCTS DIVISION **South Bend IND.**

Bendix
AVIATION CORPORATION



Truck 4-Barrel Carburetor

HOLLEY CARBURETOR CO. has released details of its new Model No. 4150-G four-barrel carburetor scheduled for use on 1957 Ford, 8-cyl, heavy trucks. Unit acts as two dual downdraft carburetors, with two barrels supplying the fuel-air mixture throughout the entire range of engine operation, the other two going into use only when called upon by speed or load, and not because the accelerator is pressed beyond a certain point. Manifold vacuum, an accurate indication of engine requirements, controls the secondary barrels.

The two primary barrels have a common choke plate, while each barrel has its own venturi, main fuel discharge nozzle, boost venturi and throttle plate. Choke plate is controlled manually. Each of the secondary barrels has a venturi, main fuel discharge nozzle, a throttle plate and a boost venturi.

Replaceable Metering Unit

The main metering unit, introduced in these carburetors, provides the metered fuel for all the fuel systems. The metering unit is replaceable, presenting a new feature for easier trouble shooting and servicing.

An automatic power enrichment system, actuated by manifold vacuum, delivers an added supply of fuel for full power or high speed operations. Each metering body is equipped with a power valve that supplies the system with additional fuel requirements when the primary and secondary throttle plates are open. The primary throttle bores supply the fuel-air mixture until the primary throttle plates reach a predetermined opening, then the secondary throttle bores start supplying the added fuel.

Built-In Governor

Model No. 4150-G is equipped with the Holley Centri-Vac Governor, which has been designed and engineered as an integral part of the carburetor. This unit is said to accurately control engine speed without excessive overrun or surging, regardless of variation of loads.

Hot starting difficulties have been largely minimized by exposing the two fuel bowls to the air stream. This aids in cooling the fuel in the float chambers, preventing percolation and hard starting when the engine is hot.

Shuttle Piston Fuel Injection

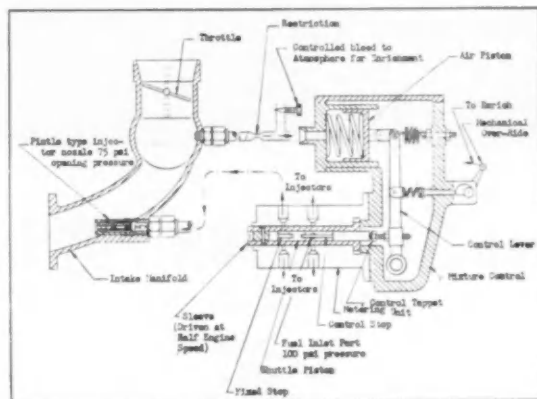
HERE ARE the details of the "shuttle piston" fuel injection system presently being developed for trucks and buses as well as automobiles by Holley Carburetor Co. Adaptation of this fuel injection system for American automotive use results from a patent cross-licensing agreement recently made between Holley and Joseph Lucas, Ltd., Birmingham, England.

Model shown and described in this report is the basic unit presently being experimented with. Other refinements being tried-out include cold starting mechanisms, new fuel nozzles, fuel enrichment devices.

Basically, the shuttle piston fuel injection system meters, distributes, and injects pressurized fuel into the intake manifold upstream, but in the near vicinity of the intake valve of each cylinder of the engine.

Four Major Components

The system is composed of four major components; (1) constant pressure pump located in fuel tank, (2) metering unit or distributor, (3) mixture control and (4) injection nozzles. In detail, the metering unit consists of the main body and its integral sleeve containing the feed channel to all inlet ports. Through these two ports is located a fuel outlet port to each cylinder. An inner sleeve, which rotates at one-half engine or at camshaft speed, is located within the nonmovable body sleeve. The rotating sleeve carries two orifices drilled at right angles to one another, but displaced axially. Housed within the rotating sleeve is the mechanical, or fixed stop, and the control stop. The desired fuel metering is accomplished by the axial posi-



tioning of the control stop, which regulates the displacement or stroke of the shuttle piston, which is located in the rotating sleeve and between the two stops.

The regulation of the shuttle piston displacement, in turn, establishes the quantity of fuel flowing and injected into each cylinder intake via the nozzles. The shuttle piston is actuated between the two stops by the fuel pressure. At the end of the cycle of each fuel charge injection, when the shuttle piston reaches the stop, there is no further fuel flow and continued rotation of the sleeve completes the cut-off to that cylinder. Simultaneously, the proper distribution is obtained by means of proper

(TURN TO PAGE 136, PLEASE)



Dwain McClure, seated, and Onis Miller of Lee Way's Oklahoma City headquarters send dispatching instructions by teletypewriter to a distant terminal

BELL SYSTEM TELETYPEWRITER SERVICE BENEFITS LEE WAY SIX WAYS

Lee Way Motor Freight, Inc., Oklahoma City, laces together its far-flung operation with a Bell System private line teletypewriter network. The company operates a fleet of more than 500 units in Oklahoma, Texas, New Mexico, Missouri and Kansas.

Its teletypewriter system, which connects headquarters office with 12 important terminals, is used primarily for dispatching. But it also has proved invaluable for claim service, sales and administration.

Vice President Stanley Lee says, "We are proud of our communication system . . . one of the most progressive steps we've taken in 20 years of operation. We couldn't get along without this Bell System service."

* * *

A Bell System communications engineer is ready to help improve your communications. His survey is yours without cost or obligation. Call your Bell Telephone Business Office.

1. In-transit time of merchandise is speeded up.
2. Claim costs are reduced.
3. "Empty miles" are held to a minimum.
4. Breakdown time is reduced.
5. Sales leads are checked immediately.
6. Emergencies are handled quicker.

BELL TELEPHONE SYSTEM



PRIVATE LINE TELEPHONE • PRIVATE LINE TELETYPEWRITER

CHANNELS FOR: DATA TRANSMISSION • TELEMETERING • REMOTE CONTROL • TELEPHOTOGRAPH • CLOSED CIRCUIT TV

October News Roundup

Maintenance Committee Elects

E. B. Ogden, director of research and development for Consolidated Freightways, Portland, Ore., was elected national chairman of ATA's Regular Route Common Carrier Maintenance Committee. Regional vice chairmen elected include: Eastern—R. L. Douglas (fleet maintenance director, Eastern Express, Terre Haute, Ind.); Central—J. B. Callan (vice president, Central Freight Lines, Waco, Texas); Western—W. J. Blohm (vice president, operations and maintenance, Denver-Chicago Trucking, Denver, Colo.). Activity vice chairmen include: Material—J. B. Boynton (equipment superintendent, Motor Cargo, Akron, Ohio); Manpower—R. E. Carter (maintenance general superintendent, Super Service Motor Freight, Nashville, Tenn.); Methods—J. H. Dolan (maintenance engineer, Burlington Truck Lines, Galesville, Ill.).

First meeting of the committee was scheduled for Oct. 9 in New York City. One feature of the meeting was working with representatives of the Truck-Trailer Manufacturers Assn. to set-up a trailer maintenance plan.

William K. Perkins

William K. Perkins, until recently manager of motor truck sales, International Harvester Co., died Aug. 31.

1956 Domestic Truck Factory Sales by GVW

	5,000 lb. and less	5,001-10,000	10,001-14,000	14,001-18,000	18,001-26,000	26,001-Over	Total
January	38,771	12,978	2,896	15,309	3,289	4,658	83,752
February	37,350	14,123	3,139	14,443	4,326	4,364	83,752
March	38,396	14,973	3,397	14,541	5,528	5,250	86,996
April	32,777	14,758	3,240	14,385	5,251	4,950	82,400
May	28,572	15,919	3,070	12,829	5,720	4,642	77,963
June	29,954	10,910	3,168	13,131	5,513	4,093	73,463
July	23,443	12,276	2,423	12,354	4,669	3,118	63,149
Total—7 Mos. 1956	227,263	95,940	21,333	96,792	34,296	31,075	551,105
Total—7 Mos. 1955	306,116	102,361	24,490	112,131	27,209	22,369	629,162

Source: Automobile Manufacturers Assn.

Truck and Bus Accidents Reported to the ICC

First Six Months, 1956

	Bus		Truck		Bus-Truck		Total		Per Cent Change
	1956	1955	1956	1955	1956	1955	1956	1955	
Total Accidents	1,913	1,599	14,525	13,908	14	18	16,452	15,523	+ 6
Fatal Accidents	51	42	526	586	0	2	577	630	- 8
Injury Accidents	1,186	987	4,385	4,269	12	11	5,583	5,267	+ 6
Property Damage Accidents	676	570	9,614	9,053	2	3	10,292	9,626	+ 7
Fatalities	65	49	643	750	0	3	708	802	- 12
Injuries	2,100	2,090	6,694	6,755	78	78	9,070	8,923	+ 2
Amount of Property Damage (in thousands)	\$954	\$805	\$17,568	\$15,679	\$28	\$50	\$18,548	\$16,534	+ 12

Note: Injuries shown resulted from both injury and fatal accidents. Damage to property resulted from accidents in all three categories.

Source: Interstate Commerce Commission.

Charles A. Tilt

Charles A. Tilt, chairman of the board, Diamond T Motor Car Co., died Sept. 19, as a result of a heart attack.

Class I Bus Lines Report

Based on carrier reports, the Interstate Commerce Commission says that for the first six months of 1956, class I motor carriers of passengers reported total operating revenues of \$228.2 million, as compared with \$223.7 million for the corresponding period in 1955, or an increase of 2.0 per cent. Total expenses increased 2.8 per cent and the operating ratio increased from 96.1 for the 1955 period to 96.8 in 1956. For the intercity carriers, the operating ratio increased from 95.0 in 1955 to 96.6 in 1956, but for local and suburban carriers it decreased from 99.4 to 97.6.

The intercity carriers reported net income after income taxes of \$1,141,110 for the first half of 1956 which is 66.3 per cent less than the \$3,388,405 reported for the comparable 1955 period. The local and suburban car-

riers reported a net income of \$664,208 in 1956 as compared with a deficit of \$500,549 in 1955. The total number of passengers carried by all class I motor carriers in the first six months of 1956 was 6.1 per cent below that for the same period in 1955.

The Railroad View

Does this sound familiar?

"... it is necessary in the public interest to impose a measure of control... with a view to insuring that the cream of the business traffic is not skimmed, at the expense of the Railway, by road transporters. ... If such conditions were allowed to develop... the Railway which does not benefit to the same extent from services maintained at the general taxpayers' expense would be forced into a bankrupt condition. ..."

It comes from a governmental committee report on truck transport being considered by the Federal Legislative Council of the Federation of Malaya.

(TURN TO PAGE 208, PLEASE)

Second Quarter Intercity Tonnage

By Regions

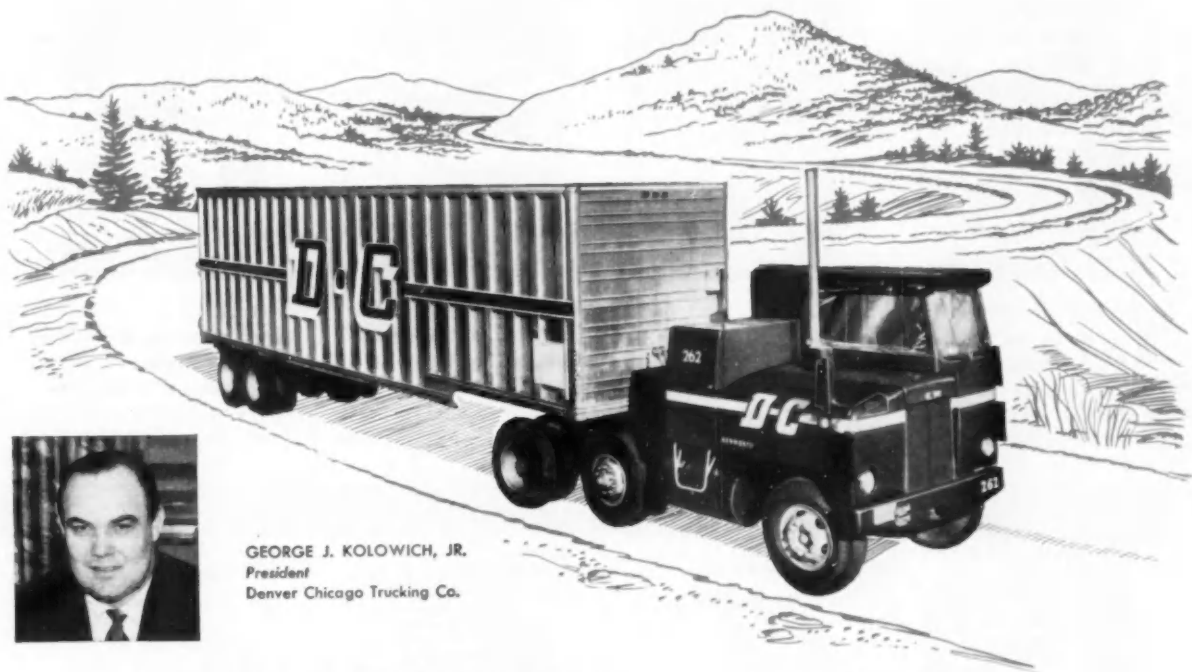
Region	Second Quarter 1956*	Second Quarter 1955*	Per Cent Change
New England	3,989	3,492	+14.2
Middle Atlantic	15,733	14,955	+ 5.2
Central	23,786	23,717	+ 0.3
Southern	7,699	7,704	- 0.1
Northwestern	3,903	3,986	+ 6.1
Middlewestern	4,438	4,168	+ 6.5
Southwestern	6,233	5,736	+ 8.7
Rocky Mountain	2,489	2,172	+14.6
Pacific	7,896	6,463	+22.0
United States	76,056	71,993	+ 5.6

* In thousands of tons. Covering 2068 ICC Class I common and contract motor carriers of property as reported by ATA Research Dept.

Second Quarter Intercity Tonnage

By Commodities

Commodity	Second Quarter 1956*	Second Quarter 1955*	Per Cent Change
General Freight	36,893	35,208	+ 4.2
Household Goods	263	233	+13.3
Heavy Machinery	988	917	+ 7.8
Liquid Petroleum	16,330	16,497	+11.1
Refrigerated Liquids	407	411	- 1.0
Refrigerated Solids	622	541	+15.1
Agricultural Commodities	805	731	+10.1
Motor Vehicles	2,678	3,613	-25.9
Building Materials	3,325	2,530	+31.4
All Other	11,943	11,313	+ 5.6
Total	76,056	71,993	+ 5.6



GEORGE J. KOLOWICH, JR.
President
Denver Chicago Trucking Co.

HOW ROSS STEERING HELPS D-C GIVE "FINER-FASTER-FURTHER" SERVICE

Ross

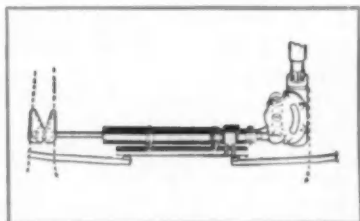
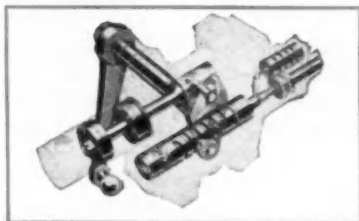
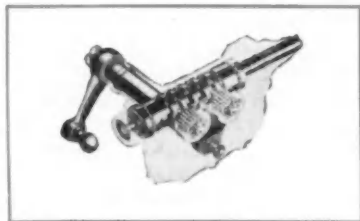
► "Our fine new KENWORTH CBE's have Ross Steering," says George J. Kolowich, Jr., president, Denver Chicago Trucking Company, coast-to-coast transport service.

"Our D-C drivers like the handling *ease, stability and safety* that Ross gives. And we like the way that Ross' dependability and trouble-free performance help us give our customers the '*finer-faster-further*' service for which D-C is noted."

Everywhere the story's the same—Ross Steering helps create customer *goodwill* for vehicles of many different types. Ross invites discussion of *any* steering problem—manual or power.

ROSS GEAR AND TOOL COMPANY, INC. • LAFAYETTE, INDIANA

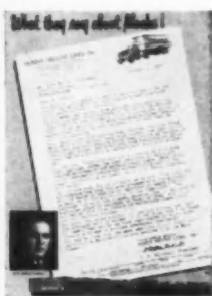
STEERING



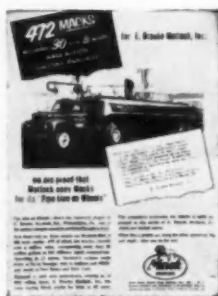
CAM & LEVER MANUAL...HYDRAPOWER INTEGRAL...HYDRAPOWER LINKAGE



CENTRAL MOTOR LINES
When the ad ran, in '53, they had just added 104 A-5ST diesels . . . since then they've added 18 new Mack H-61T diesels and 50 new Mack H-63T diesels.



HENNIS FREIGHT LINES
When the ad ran, in '53, they had just added 30 H-61T diesels . . . since then they've added 75 new Mack H-63T diesels.



E. BROOKE MATLACK, INC.
When the ad ran, in '54, they had just added 30 Mack B model diesels . . . since then they've added 36 new Mack B-61T diesels.



BELL LINES, INC.
When the ad ran, in '54, they had just added 40 Mack B-65LT diesels . . . since then they've added 40 new Mack B-65LT diesels.



HEMINGWAY BROS.
When the ad ran, in '54, they had just added 15 Mack B-61T diesels . . . since then they've added 50 new Mack B-61T diesels.



LEE WAY MOTOR FREIGHT, INC.
When the ad ran, in '55, they had just added 50 Mack B-61ST diesels . . . since then they've added 70 new Mack B-61ST diesels.



ADLEY EXPRESS CO.
When the ad ran, in '55, they had just added 20 B-60T's . . . since then they've added 75 new Mack B-60T's.



SMITH'S TRANSFER CORP.
When the ad ran, in '55, they had just added 100 H-63LT diesels . . . since then they've added 25 new Mack H-63LT diesels.



HOOVER MOTOR EXPRESS CO.
When the ad ran, in '55, they had just added 70 B-61T diesels . . . since then they've added 30 new Mack B-61T diesels.



EASTERN MOTOR EXPRESS, INC.
When the ad ran, in '56, they had just added 120 B-65LT diesels . . . since then they've added 43 new Mack B-65LT diesels.



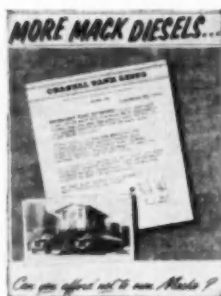
MID-STATES FREIGHT LINES, INC.
When the ad ran, in '56, they had just added 25 B-65LT diesels . . . since then they've added 25 new Mack B-65LT diesels.



AKERS MOTOR LINES, INC.
When the ad ran, in '56, they had just added 85 H-63T and B-61T diesels . . . since then they've added 48 B-61T and 10 H-63T Mack diesels.



ROADWAY EXPRESS, INC.
When the ad ran, in '54, they had just added 124 Mack H-61T diesels . . . since then they've added 177 B-65LT and 25 H-63LT Mack diesels.



COASTAL TANK LINES
When the ad ran, in '54, they had just added 24 Mack B-61T diesels . . . since then they've added 24 new Mack B-61T diesels.



WILSON TRUCK CO.
When the ad ran, in '54, they had just added 20 A-50T and B-50T tractors . . . since then they've added 20 B-42T tractors and 150 B-65T diesels.



CAROLINA FREIGHT CARRIERS CORPORATION
When the ad ran, in '54, they had just added 60 Mack H-61T diesels . . . since then they've added 95 Mack H-63T diesels.

remember these ads? well — what's happened since? ... they all bought **more MACKS**

... because Macks live up to their reputation.

These leading truckers expected a lot from their Macks . . . in dependability, economy and earning power . . . and one repeat order after another proves that they got what they expected. It's a sure bet! Buy a Mack and you'll keep coming back for more, too.

Find out about the swing to Macks—the swing that has entrenched Mack diesel

trucks in the No. 1 sales spot for the past three years. *They're first because they're best!*

Mack Trucks, Inc., Plainfield, New Jersey.
In Canada: Mack Trucks of Canada, Ltd.

3246

MACK
first name for
TRUCKS

1956 New Truck Registrations by Makes by States

STATE AND MONTH	Brockway	Chevrolet	Diamond T	Dodge	Ford	G.M.C.	International	Mack	Reo	Studebaker	White	Willis Jeep	Willis Truck	All Others	Total
Alabama	July 429	3	61	363	154	108	15	1	6	15	5	7	40	1,167	
July Mos.	3,813	13	513	2,836	1,355	906	113	11	46	120	39	43	40	9,848	
Arizona	July 251	4	56	173	80	47	3	13	11	5	15	10	668		
July Mos.	1,632	6	299	1,175	516	352	19	6	68	30	49	101	69	4,318	
Arkansas	July 688	2	88	517	153	215	4	21	4	2	2	2	1,705		
July Mos.	3,782	22	400	2,899	938	1,080	24	1	128	42	39	29	4	9,377	
California	July 2,631	71	592	2,564	689	802	40	18	57	67	94	124	256	7,807	
July Mos.	19,970	230	3,790	17,009	5,149	3,944	242	180	568	520	617	922	1,580	54,721	
Colorado	July 347	8	63	224	63	89	9	13	10	34	35	11	926		
July Mos.	2,558	31	437	1,864	619	715	53	14	72	60	184	252	83	6,942	
Connecticut	July 199	5	56	190	111	66	11	23	13	25	15	21	731		
July Mos.	1,574	70	420	1,277	530	822	202	47	76	171	88	127	163	5,579	
Delaware	July 86	2	16	58	22	44	42	1	2	2	5	2	280		
July Mos.	1	498	7	118	378	206	251	75	13	30	26	15	13	1,631	
District of Columbia	July 70	7	18	39	10	16	5	3	2	2	6	3	172		
July Mos.	448	2	107	436	165	240	26	16	6	64	6	31	32	1,579	
Florida	July 796	6	106	784	196	215	80	14	28	57	28	51	29	2,391	
July Mos.	5,227	44	811	5,063	1,419	1,388	341	97	166	345	197	352	229	15,679	
Georgia	July 2,291	13	379	2,376	613	721	72	9	82	88	39	22	7	8,711	
July Mos.	2	5,270	29	885	5,631	1,683	1,567	208	20	164	241	84	75	24	15,883
Idaho	July 182	4	45	106	72	80	2	16	8	9	28	4	552		
July Mos.	1,113	4	278	878	413	509	23	94	31	70	179	24	3,616		
Illinois	July 1,029	35	163	928	290	519	44	5	23	55	9	15	44	3,159	
July Mos.	7,320	292	1,281	6,620	2,087	3,767	227	51	253	407	143	134	314	22,896	
Indiana	July 774	25	132	661	150	402	25	7	43	56	15	19	16	2,325	
July Mos.	5,136	118	955	4,388	1,329	2,698	194	72	372	499	63	94	112	16,030	
Iowa	July 426	10	66	383	83	262	2	1	15	7	2	4	48	1,309	
July Mos.	2,787	70	409	2,646	514	1,656	12	10	94	69	19	27	138	8,449	
Kansas	July 472	4	51	422	91	147	1	6	17	5	3	8	1	1,228	
July Mos.	3,081	17	380	2,748	757	1,199	14	24	95	78	28	91	37	8,547	
Kentucky	July 433	6	64	371	110	123	16	3	10	13	23	13	36	1,185	
July Mos.	3,283	22	514	2,561	1,012	1,059	65	11	83	82	91	107	36	8,826	
Louisiana	July 575	2	69	565	132	136	8	4	6	7	8	7	8	1,520	
July Mos.	4,897	43	503	4,035	1,143	1,074	96	19	104	94	76	81	25	12,190	
Maine	July 107	3	39	69	4	6	4	7	7	7	10	13	10	403	
July Mos.	4	985	3	287	939	385	479	46	3	57	40	68	132	76	3,484
Maryland	July 268	3	83	282	49	134	37	8	7	22	3	7	14	896	
July Mos.	11	2,088	10	650	2,063	420	857	190	54	67	122	37	56	46	6,699
Massachusetts	July 409	9	167	535	177	222	307	54	9	20	70	24	33	26	1,890
July Mos.	41	2,453	79	963	3,027	1,011	1,388	335	66	84	386	183	206	242	10,384
Michigan	July 805	16	226	841	196	162	17	8	15	26	25	37	26	2,400	
July Mos.	7,045	141	1,860	6,844	1,990	1,990	190	104	171	339	166	206	275	20,821	
Minnesota	July 316	13	66	349	112	248	12	3	10	16	6	6	24	1,181	
July Mos.	3,394	52	598	3,562	905	1,648	75	41	153	59	56	126	108	10,775	
Mississippi	July 721	5	58	542	151	183	6	13	4	10	4	1	1	1,893	
July Mos.	3,718	5	353	2,896	932	1,045	39	2	105	18	45	31	4	9,195	
Missouri	July 684	3	115	905	178	247	1	6	16	45	9	4	8	1,821	
July Mos.	5,581	42	743	4,206	1,482	1,897	52	32	134	306	58	41	88	14,844	
Montana	July 182	31	144	67	75	9	3	9	4	13	27	14	548		
July Mos.	1,183	1	249	1,108	434	767	37	11	71	29	99	217	58	4,284	
Nebraska	July 192	16	30	214	59	134	1	2	2	8	7	9	7	881	
July Mos.	1,825	53	235	1,487	441	950	3	20	61	94	45	55	49	5,098	
Nevada	July 109	5	82	51	91	41	5	16	1	9	21	6	412		
July Mos.	587	5	221	439	338	173	18	89	1	35	99	42	2,025		
New Hampshire	July 22	2	80	32	53	11	2	4	4	48	78	134	47	307	
July Mos.	1	644	2	184	576	247	323	114	15	44	48	78	134	47	2,455
New Jersey	July 437	6	118	427	157	220	48	4	13	35	17	30	28	1,554	
July Mos.	114	3,854	116	2,229	3,579	1,301	1,640	420	44	99	377	99	164	258	13,294
New Mexico	July 239	94	167	93	17	5	7	5	7	6	22	20	3	704	
July Mos.	1,852	9	220	1,210	573	381	76	7	45	38	68	108	27	4,614	
New York	July 42	1,076	15	442	1,187	460	169	39	25	191	70	94	75	4,525	
July Mos.	319	7,577	121	2,635	7,644	2,789	4,017	1,010	244	187	898	356	580	568	28,965
North Carolina	July 747	43	98	567	194	269	30	1	21	56	9	9	2	2,046	
July Mos.	4,686	110	770	4,340	1,258	1,376	333	17	193	242	86	88	40	13,539	
North Dakota	July 118	35	25	130	35	92	1	5	34	3	21	32	6	417	
July Mos.	837	7	181	774	215	687	1	6	24	63	34	44	26	2,796	
Ohio	July 834	7	198	968	208	390	39	8	64	34	44	26	2,843		
July Mos.	1	7,493	107	1,829	7,581	1,956	3,485	378	136	214	680	180	298	271	24,609
Oklahoma	July 636	1	53	442	128	180	7	6	8	19	6	7	9	1,502	
July Mos.	3,946	9	372	3,015	883	1,165	80	29	80	123	27	30	50	9,809	
Oregon	July 379	12	87	476	182	216	24	4	19	62	12	49	62	1,584	
July Mos.	2,793	68	565	2,306	1,067	1,213	137	19	207	293	113	346	310	9,436	
Pennsylvania	July 1,084	25	339	945	348	585	109	12	36	108	47	77	28	3,722	
July Mos.	88	7,354	157	2,320	7,224	2,406	3,804	835	103	302	881	282	650	224	26,630
Rhode Island	July 43	2	14	66	19	36	15	3	3	1	2	5	7	216	
July Mos.	434	18	148	461	158	243	56	12	17	29	14	32	34	1,856	
South Carolina	July 260	1	46	226	67	75	4	2	2	22	4	5	1	713	
July Mos.	2,427	8	359	2,080	547	599	146	3	58	80	25	21	18	6,329	
South Dakota	July 153	27	160	77	100	49	105	1	2	3	5	5	4	516	
July Mos.	855	12	149	838	263	728	1	10	28	6	55	66	38	3,049	
Tennessee	July 468	4	64	347	210	132	16	3	7	14	3	6	1	1,274	
July Mos.	3,650	27	704	3,080	1,103	1,149	136	22	70	192	55	80	11	10,239	
Texas	July 1,969	13	146	1,307	325	411	56	6	37	77	23	27	20	4,417	
July Mos.	16,662	160	1,446	11,979	2,993	4,075	373	49	297	791	173	204	120	30,322	
Utah	July 118	7	41	130	52	53	8	2	6	13	16	6	452		
July Mos.	945	14	256	714	358	388	36	14	42	40	37	84	2,995		
Vermont	July 54	1	14	50	18	56	3	2	6	1	8	18	2	232	
July Mos.	17	526	5	127	527	248	355	43	2	34	5	83	136	25	2,143
Virginia	July 1	513	4	125	478	115	230	31	13	20	45	12	15	11	1,609
July Mos.	2	3,740	9	799	3,485	984	1,139	342	66	145	208	111	145		

Source: Data from R. L. Polk & Co.



1906

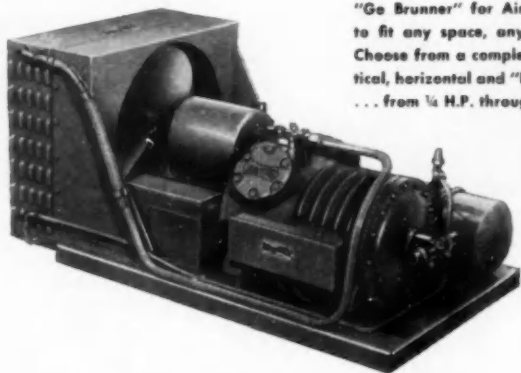
"Squeeze-it" auto horn . . .
engineered to give 1906 pedestrians a sporting chance. It was
in 1906 that Brunner engineers
produced the first Brunner Air
Compressor.



TODAY

Brunner experience
provides engineered
"air power" for the
complete range of
compressed air needs!

BRUNNER MANUFACTURING COMPANY, UTICA, N. Y.
THE BRUNNER CO., GAINESVILLE, GA.
IN CANADA: BRUNNER CORP. (CANADA) LTD., TORONTO, ONT.



"Go Brunner" for Air Compressors
to fit any space, any requirement.
Choose from a complete line of vertical,
horizontal and "Du-Al" models
. . . from 1/4 H.P. through 50 H.P.

Also . . . TRUCK REFRIGERATION CONDENSING UNITS available
from 1/4 H.P. through 2 H.P. . . . in either open-type or semi-her-
metic models. Built for easy installation and maintenance.



5 ways
Tachographs
can improve
your fleet
operation...



IN CASE OF ACCIDENT...

1 the Tachograph will tell how fast the vehicle was moving ... time of accident ... when travel was resumed. Location of accident can be verified. Tachograph charts are often used to substantiate driver's testimony in court cases involving accidents or speeding.



CUTS UNSCHEDULED STOPS...

2 Tachograph tells when vehicle made unscheduled stops ... for how long ... when travel was resumed ... how fast vehicle traveled before and after such stops. It can show how far off schedule the vehicle was and how many unscheduled stops were made in any 24-hour period.



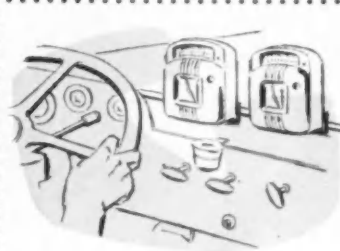
PROVIDES BETTER ROUTING DATA...

3 Tachograph can help determine the best routing for normal, "express" or special runs. It will indicate where traffic tie-ups are likely to occur, where slow-downs are necessary due to terrain. It can provide the basis for scheduling new runs.



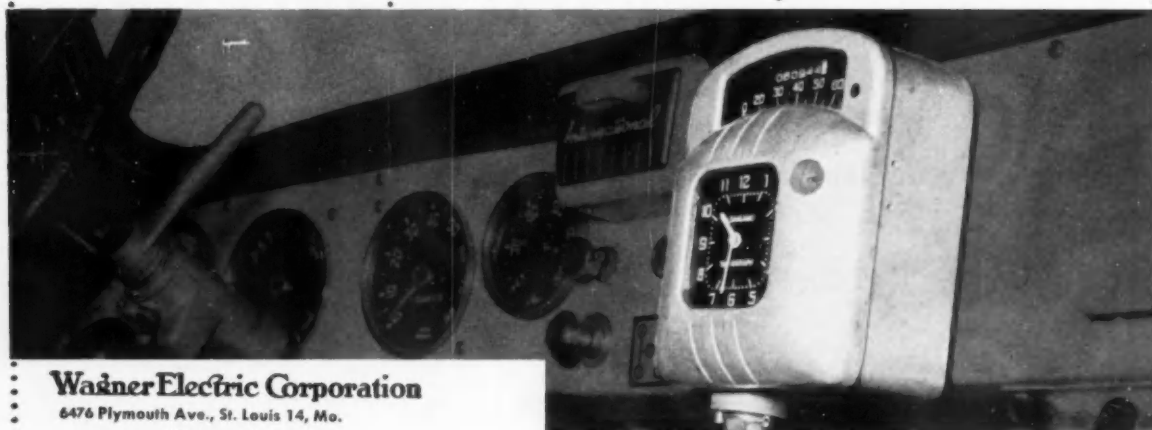
LOWERS OPERATING COSTS...

4 Tachograph verifies drivers' pay records (hours or miles), overtime reports, delays in loading or unloading, showing time and location. It helps control the speed of a vehicle ... saves gas—oil—tires. It can be helpful in reducing the number of reportable accidents which in turn can lower insurance rates.



R.P.M. MODELS, TOO...

5 A Tachograph scaled to indicate R.P.M.'s instead of miles per hour will tell a driver when to shift gears so that he can avoid abusing the engine through over-speeding, "lugging" and improper shifting. An R.P.M. Tachograph is the ideal companion for the M.P.H. unit to give a complete record of your vehicles.



Wagner Electric Corporation

6476 Plymouth Ave., St. Louis 14, Mo.

Please send Tachograph Booklet SU-91.

NAME AND POSITION _____
COMPANY _____
ADDRESS _____
CITY _____ STATE _____
WE OPERATE _____ VEHICLES S56-B

Please send us a **FREE COPY**
of Booklet SU-91



CCJ's Truck Specifications

COMPILED FROM DATA SUPPLIED BY MANUFACTURERS

KEY TO DEFINITIONS

MAKE AND MODEL
Only Domestic Truck Models are listed.

OPTIONAL UNITS
For the express purpose of best fitting the truck to the individual job most of the models listed can be provided with optional engines, transmissions, axles, etc., and these models when so equipped are considered standard stock models.

CHASSIS LIST PRICE
The chassis list price applies to the minimum standard wheelbase with standard tires and standard equipment. All prices are F.O.B. factory. Chassis list price does not include the price of the Cab unless otherwise noted.

RECOMMENDED GROSS VEHICLE WEIGHT FOR NORMAL SERVICE
The Gross Weights published herewith are

those supplied by manufacturers as their Recommended Gross Vehicle Weights for Normal Operating Conditions, and are based upon the Maximum Authorized Tire Size listed. In actual practice the manufacturer may either increase or decrease the gross vehicle weight rating when either favorable or unfavorable operating conditions are involved. Since the proper performance of a motor truck depends upon many factors, including grades, road conditions, etc., the gross weights that a manufacturer is prepared to recommend will vary with particular conditions and the manufacturer's own standard of safety factors. Specific recommendations, therefore, should be obtained from the manufacturer's representative.

CHASSIS WEIGHT
The chassis weight listed includes the weight of the minimum standard wheelbase chassis, with cowling, standard tires, with standard equipment, with crankcase and cooling system full, and 5 gallons of fuel in the tank. It does not include the

weight of the Cab. This applies to C.O.E. as well as conventional chassis types. Exceptions are noted.

STANDARD TIRE SIZE
The standard tire size listed is that which is included in the Chassis List Price.

MAXIMUM AUTHORIZED TIRE SIZE

The tire size listed in this column is the maximum size recommended by the manufacturer of the chassis for the Gross Vehicle Weight for Normal Operating Conditions. It is furnished at extra cost, if it differs from the standard size. Dual rears are understood; exceptions noted.

MINIMUM STANDARD WHEELBASE
The minimum standard wheelbase is the so-called standard wheelbase on which the Chassis List Price is based.

MAXIMUM STANDARD WHEELBASE

The maximum standard wheelbase is the extreme end of the standard range of wheelbases offered by the chassis maker.

MAXIMUM BRAKE HP.

Maximum Brake Horsepower at Given R.P.M. is actual dynamometer reading without accessories.

GEAR RATIO RANGE

Gear Ratio Range in High—Ratios within the range given are available at no extra cost. Exceptions are noted.

TRACTORS

Unless given the designation (N)—meaning not available as a tractor—all standard models may be assumed to be available as tractors. Exclusively Tractor models are designated (T).

KEY TO ABBREVIATIONS

MAKES—ALL
B—Bentley
BL—Brown-Link
Bu or Bud—Buda
BW—Bentley-Westhouse
C—Chevrolet
Cl or Cla—Clark
Con—Continental
Co or Cum—Cummins-Diesel
Lat—Lafayette
F—Ford
Fu—Fuller
G—Goodyear-Hawley type
H—Hotchkiss
Her—Hercules
HS—Hall-Scott
Int—International Harvester
L—Lockheed
LeR—LeRoy
LH—Lockheed front, Wagner "Hi-Tork" rear
LT—Lockheed type front Timken rear
LW—Lockheed front, Wisconsin rear
M—Midland
N.P.—New Process
O or On—Oren
Op or Opt—Optional
Shu—Shuler
Spi—Speer
T or Tim—Timken-Detroit Axle Co.

T—Timken-Detroit—Westhouse
TW—Timken-Detroit—Wisconsin
Var—Variable
WG—Wagner Gear
Wau—Waukesha
W or Wis—Wisconsin
WE—Wagner Electric
Wg—Wagner "Hi-Tork"
Wt—Westhouse
WW—Westhouse or Wagner

WHEELS DRIVEN
2F—Forward unit of Rear Axle Group
2R—Rear Unit of Rear Axle Group
4R—Forward and rear units of Rear Axle Group
6—All wheels

BRAKES—SERVICE
Location
4—Four Wheels, front and rear.
4r—Four Wheels, rear only.
Type
I—Internal
X—External
Operation
A—Air
H—Hydraulic

V—Vacuum
D or Dp—Dual Primary
BRAKES—HAND
Location
C—Center of double propeller shaft
2—Rear wheels
4—Four wheels
6—Six wheels
P—Jack of Power Divider
J—Jackshaft
T—Transmission
F—Drumshaft

Type
D—Tru-Stop disk
I—Internal
M—Mechanical
X—External
PD—Two drums on rear of power divider
F—Mechanical, foot operated

BRAKE DRUMS
Material
A—Cast alloy iron
A—American Car Foundry
C—Cast iron
C—Composite Front, Cast Iron in rear
Ce—Centrifuge

Cl—Copper iron
Co—Composite
CX—Front, centrifugal cast; rear, composite
D—Dayton
E—Ermalite
G—Gumite
N—Nickel iron
S—Steel
(Where a combination of any of the above is used, the first reference mark applies to the front and the second to the rear drums.)

FRAME
Type
C—Channel
T—Channel tapered front and rear
L—Channel reinforced with liner
B—Channel reinforced with both liner and ribplate
P—Channel reinforced with plate
TL—Channel tapered front and rear reinforced with liner
D—Drop Center
T—Tapered front
A—Straight section side members, lined with oak inserts

Z—Reinforced (X) member frame, box type sections
BG—Box girder
H—Heat treated

REAR AXLE
Final Drive and Type
R—Bevel
CD—Chain Drive
F—Full-floating
H or Hy—Hypoid
4—Dual rear axle
2—Double Reduction
S—Spiral bevel
W—Worm
3/4—Three Quarters Floating
1/2—Semi-Floating
T—Torque Tube

GEAR RATIOS
(**) Only one ratio.
Drive and Torque
H—Hotchkiss (springs)
R—Radius Rods
L—Parallel Torque Rods
T—Torque Arm

GOVERNOR STANDARD
V—Yes
N—No

KEY TO REFERENCES

c.f.—Cab Forward design.
c.o.e.—Cab-Over-Engine design.
l.c.f.—Low cab forward design.
D—Diesel-engine equipped.
(T)—Designed for tractor use only.
(C)—Ford or Chevrolet Models.
(R)—Remanufactured Models.
*—Denotes "Includes Cab" when used with weights or prices.

AVAILABLE
*—Conventional or C.O.E. available.
†—Air brakes available.
*—Two or three speed auxiliary transmission available.
*—Two speed rear axle available.

CHEVROLET
*—Includes spare tire, full fuel tank and cooling system.
†—Tridemaster V-8 engine available.
*—Taskmaster V-8 engine available.
*—5-speed transmission available.
*—Powermatic available.
*—Front, 2.30 x 702; rear, 2.30 x 116.
*—Overdrive optional.
*—Theoretical I.D. (journal diameter plus clearance) front, 2.6856; front center, 2.7166; rear center, 2.7478; rear, 2.7788. Total effective length (overall length minus chamfers) 4.127.
*—7.17 5 D optional.
*—7.17 8F available.
*—488 sq. in. lining area used with 7.17 8F axle.
*—9.21 x 3 1/2 in. B P type front, 2.69 x 1.06; rear, 2.78 x 1.19.

*—Front, 2.30 x 78; rear, 2.30 x 98.
*—Synchro-mesh 3-speed H.D. optional.
*—4 and 5-speed synchro-mesh transmission optional.
*—Two-speed rear axle available.
*—TM brake optional.
*—Hydramatic available.
*—4.11 available with optional overdrive.
*—Air over hydraulic brakes available.
*—715 sq. in. drum area with 4.11 x 2.17 8F axle.
*—4.11 available with optional overdrive; 3.36 available with optional automatic transmission.
*—6.17 available.
*—Speer H.D. 5-speed transmission available.
*—V-8 Turbo-Fire 265 or Turbo-Fire 283 engines available.
*—Powerglide or Turboglide optional.
*—V-8 Super Taskmaster 283 optional.
*—V-8 Super Loadmaster 322 optional.
*—Frame reinforcements 8 1/2 x 3 1/4 x 3/8 optional.

COLEMAN
*—11.00 22 also available.
*—FusA65 or Spicer 6352 also available.
*—Cum HRB600 also available with horsepower of 165-1800.
DODGE
*—Two speed rear axle available.
*—Front only; rear, 9.22 5.
DUPLEX
*—Torque Divider, Timken T70-2 speed.

FABCO
*—see same footnote under Chevrolet.
*—With 3-speed transfer case.
RC—Chevrolet axle remanufactured.
RF—Ford axle remanufactured.

FEDERAL
*—Also available with tandem rear axle.

FORD
*—Courier 176-hp engine with Fordomatic.
†—F-350, 9800 lbs. G.V.W. with dual wheels.
*—F-600, C-600, B-600, 158-hp, and 168-hp (governed) H.D. Power King engines also available.
*—F-700, C-700, B-700, 168-hp Power King engine also available.
*—F-700, 302 cubic inch Cargo King engine also available.
*—F-750, C-750, B-750, 196-hp Cargo King engine also available.
*—F-800, C-800, B-800, C-900, 212-hp Torque King engine also available.
*—F-700, F-750, B-700, B-750, C-700, C-750, only one ratio available.
*—B-500 School Bus (cowling to axle dimension) 194 in. for 220 in. wheelbase.
*—P-350 Parcel Delivery (cowling to axle dimension) 194 in. for 220 in. wheelbase.
*—F-500, 7.5 in. x 2 1/2 in. x 1/4 in. frame standard on 130 in. wheelbase; 9 1/4 in. x 2 1/2 in. x 1/4 in. frame

standard on 154 in. wheelbase.

FWD
†—Transport tractors with one man cab beside the engine.
*—23 PT rear axle is a driving axle plus a trailing axle.
*—Model available in c.o.e.

KENWORTH
*—Timken TK-500 PA Trailing Axle.
†—14.00 24, front; 16.00 24, rear.
*—Optional transmission.
*—C.O.E. optional.
*—One man cab.
*—Torque converter plus Torquematic transmission optional.
*—Cab beside engine optional.
*—Both C.O.E. and cab beside engine optional.
†—14.00 24 front; 18.00 25 rear.
*—Cummins NHRB81D 600.
†—Allison TCL 654 plus TG 607.
*—1148.
*—1108.

NAPCO
*—NAPCO—Federal Truck Div., Northwestern Auto Parts Company (Chevrolet 4-wheel drive conversion).
*—See same footnote under Chevrolet.

OSHKOSH
*—Includes cab.
*—1091 cu. in.
*—Hydraulic coupling optional.
*—Dependent upon engine.

REO
*—Model 331-0A and 331-0A LPG engines can be furnished.
*—Two speed axle available.
*—Plus full outer channel, 9 1/2 x 3 1/2 x 1/4.
*—Model 255-0A-LPG or 292-0A engine can be furnished.
*—Front only; rear, 11 22 5.
*—Front only; rear, 10 22 5.
*—OH-160 or OH-160 LPG engine can be furnished.
*—OH-160 LPG engine can be furnished.
*—Model OV-220 or OV-220 LPG engine can be furnished.

STUDEBAKER
*—Two speed 5.93 8.10 or 6.48-8.86 optional.
*—Front, centrifugal cast; rear, composite.


TRUCKSTELL
*—With 3 speed power divider.
*—Weight with cab and maximum tires for G.V.W. of 60,000 lbs and optional front and rear axles.
*—Auxiliary transmission, Fuller 3A65, 3B65, 3A92 and 3B92.

WARD LA FRANCE
*—Available with optional rear axles.
*—Available with 11.00 22 or 12.00 20 tires for G.V.W. of 60,000 lbs and optional front and rear axles.
*—Auxiliary transmission, Fuller 3A65, 3B65, 3A92 and 3B92.

WILLIS
*—Complete vehicle-Pick-up type body.
*—Three speed transmission, 2 speed transfer case.

(Turn to Next Page, Please)

Turn to Page 98, Please)



Sigflare – A Brass Socket– and You!

What's the connection? Well, failure of any part of a vehicle's lighting and signaling system may produce not only a violation of the law, resulting in costly delays and fines, but may be the direct cause of serious—even fatal—accidents.

Take bulb sockets. They are a small item and many manufacturers apparently see no harm in saving a few pennies by using ferrous metal or die cast sockets. Inevitably, the result—despite the use of zinc, cadmium, or other types of metallic plating as sacrificial corrosion agents—is a substantial shortening of the life of the product—pitting, voltage drop, bulbs frozen in sockets, loss of electrical efficiency, and premature failure of the signal.

The brass sockets in every Signal-Stat lamp are but one example of our conscientious determination to manufacture products that provide maximum safety and protection for the longest possible time.

And for maximum safety nothing compares with Sigflare. Sigflare is a completely new and revolutionary concept of signaling protection.

The Sigflare System, with the patented Sigflare switch and heavy duty flasher, costs no more than an ordinary set of signals; but in addition to the finest directional signals with positive pilot action—and without additional cost—you get two stop lights as powerful as the directional signals, two tail lights as bright as the law allows and the flare feature with pilot action to instantly warn oncoming traffic if the vehicle is disabled. (Note: A special wing lever on the Sigflare switch makes all four signal lamps flash simultaneously when the vehicle is disabled, thereby setting up a complete safety zone around the disabled vehicle.)

Signal-Stat

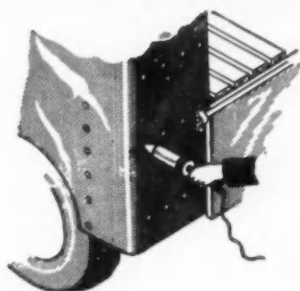
DIRECTIONAL SIGNALS • SWITCHES • FLASHERS

Signal-Stat Corporation, 523-539 Kent Ave., Brooklyn 11, N. Y.

You can and should insist on Signal-Stat when purchasing signaling equipment for your vehicles. When you purchase a new vehicle, you have the right to insist on the best equipment. Specify Signal-Stat. Your truck manufacturer or dealer can supply it.

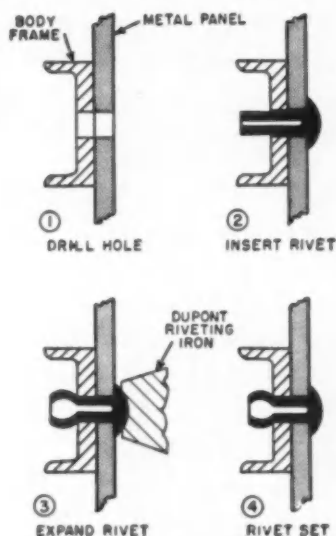
(Continued from Page 96)

Line Number	MAKE AND MODEL	Chassis List Price	WHEEL-BASE Minimum Standard Maximum	Gross Vehicle Weight For Normal Service	TIRE SIZES		ENGINE DETAILS		TRANSMISSION			REAR AXLE		FRONT AXLE		BRAKES		C-A Dimensions (Min. Std. W. B.)	Side Rail Dimensions	Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Standard (See definition)	Authorized (Dual use - less noted)	No. of Cylinders	Bore and Stroke	Displacement	Comp. Ratio	Torque lb. ft.	Max. Brake H.P. at R.P.M.	Main Bearings	Governor Standard	Make and Model	Forward Speeds	Make and Model				Clear and Type	Clear Ratio	Range in High	Make and Model	Make Operation	Linking Area	Drum Area	Drum Material	Hand Location	Type																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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TRUCK BODY ASSEMBLY

**BLUEPRINT
FOR SIMPLIFIED
FASTENING**



Save minutes and money on truck assembly with Du Pont Industrial Rivets

Fastening's at its quickest and simplest with Du Pont Industrial Rivets. Take this truck-panel assembly job. All you do is:

1. Drill holes in body frame and metal panel.
2. Insert Du Pont Industrial Rivets.
3. Place heated iron to Rivet heads.

1-2-3 . . . done! In as little as $\frac{1}{2}$ second Rivets expand, forming smooth, barrel-shaped heads on shop end ("4") . . . frame and panel are knit together, with no after-finishing needed.

Industrial Rivets make it a one-man job. Working *only* from head side of Rivets, operators can set up to 25 a minute . . . bucking bar or special equipment is "excess baggage."

The strong, one-piece Rivet construction means solid assembly that'll stand up in highway stresses and strains. And these Rivets can handle metal-to-metal or wood-to-metal work, all with a wide grip range that cuts inventory. So whether you use them on truck doors, side panels, floors, fenders or running boards—you get

a sturdy job in less time, with less effort, for less money. Test 'em soon.

A 32-page booklet explaining all about Du Pont Industrial Rivets is yours for the asking. Simply contact your jobber or write: E. I. du Pont de Nemours & Co. (Inc.), Explosives Department, Wilmington 98, Delaware.

**DU PONT
INDUSTRIAL RIVETS**
A Product of Du Pont Explosives Research



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

(Turn to Page 102, Please)

THERE ARE 12 MAJOR AMERICAN
TRUCK MANUFACTURERS:

**All recommend
chrome
top groove
compression
rings for
replacement**



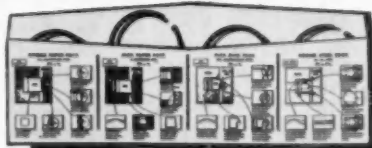
A FULL CHROME RING SET Pre-seated Krome-Oil fits truck manufacturers' "specs" best. Chrome top groove compression ring, chrome on the side rails of the oil ring. It's a full chrome ring set—assures longer, more efficient operation.



**Pre-seated for
instant oil control**

Pre-seating is a factory-applied lapping process equivalent to hundreds of miles of actual engine operation. Krome-Oil seats fast . . . delivers instant oil control . . . requires less down time.

AMERICAN HAMMERED
Pre-seated Krome-Oil Piston Ring Sets



All-in-one Ring Envelope contains rings in installation sequence. A real time-saver for the mechanic.

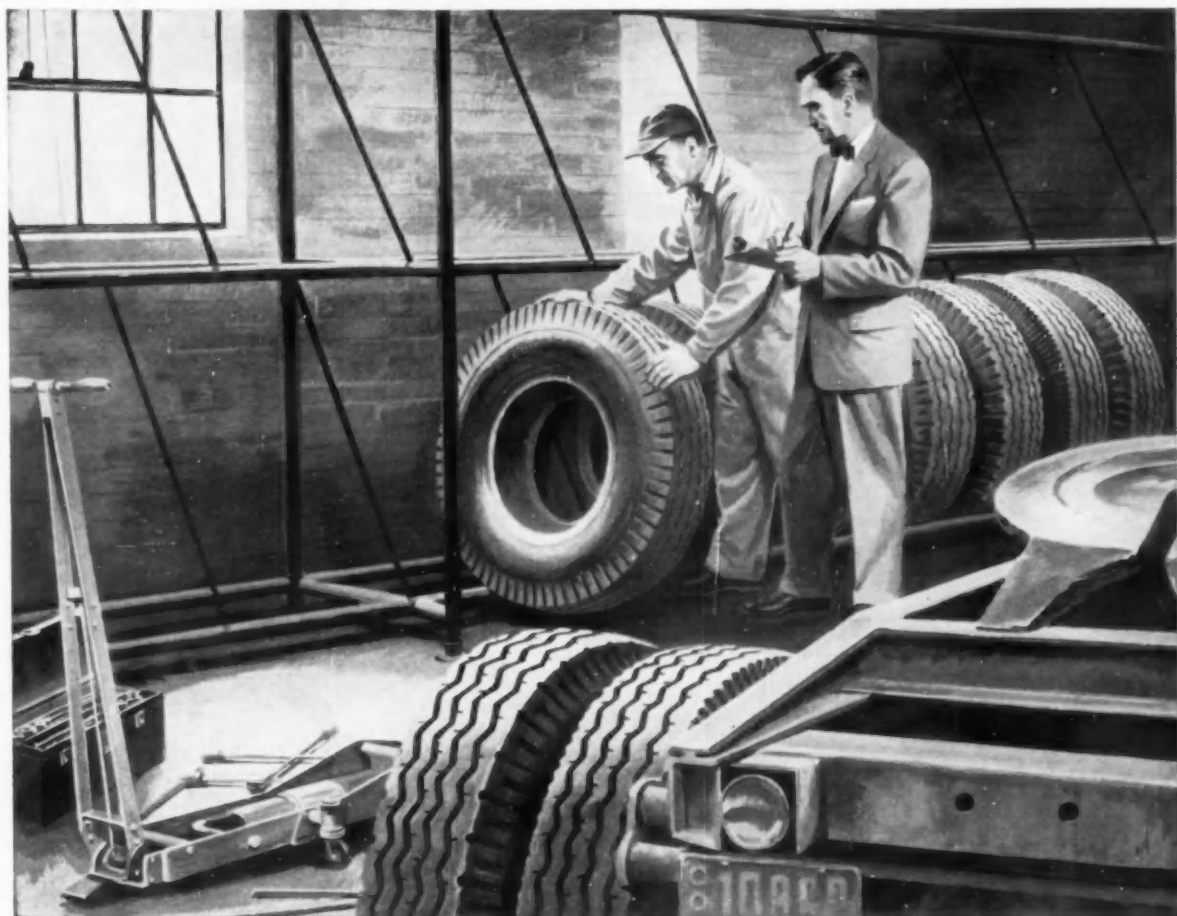
FREE—helpful shop manual

32 Reasons for Oil Consumption—an easy-to-use, illustrated, indexed manual listing 32 major oil consumption problems and remedies. Prepared by one of the top technical staffs in the field. Write—Oil Consumption Manual, American Hammered, Dept. A, 2001 Sanford St., Muskegon, Mich.

American Hammered

AUTOMOTIVE REPLACEMENT DIVISION • 2001 Sanford Street, Muskegon, Michigan
Manufacturers of American Hammered Automotive Replacement Piston Rings.
A Division of Sealed Power Corporation

INSTALL KROME-OIL . . . rings that keep your rigs on the road longer!



NYLON CORD TRUCK TIRES SAVE YOU MONEY 5 WAYS

1. NYLON MEANS LESS TIRE INVENTORY. With nylon, you can reduce your tire reserve . . . free your capital for other business needs. Fewer failures and more mileage per tire mean you need fewer spares on hand . . . fewer tires per year.

2. NYLON MEANS FEWER ROAD DELAYS. Nylon cord tires help you maintain strict schedules and on-time deliveries, save drivers' time and service costs.

3. NYLON MEANS MORE OVER-ALL MILEAGE. Tough nylon cords mean fewer tire failures . . . higher average tire mileage.

4. NYLON MEANS SAVINGS ON TIRE REPAIRS. By guarding against every major cause of tire failure—flexing, moisture, heat and impact—nylon cords save you service charges and tire repair costs.

5. NYLON MEANS MORE RETREADS. Because their casings are tougher, nylon cord tires can be retreaded again and again. And every retread stretches your tire dollars . . . brings down costs per mile.

NYLON CAN CUT YOUR YEARLY TIRE COSTS. You'll get more miles per dollar, more profit per load . . . when your trucks roll on nylon cord tires. Ask your dealer about nylon cord tires today. Du Pont makes the tough, long-lasting yarns that are used by rubber companies to make the tires that give extra protection against tire failure. Du Pont does not make tires.



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



NOW, IN PASSENGER-CAR TIRES, TOO . . . THE STRENGTH AND TOUGHNESS OF NYLON . . . FOR UTMOST SAFETY, SUREST PROTECTION AGAINST TIRE TROUBLE

(Continued from Page 102)

Line Number	MAKE AND MODEL	Chassis List P.	Minimum Standard	Maximum Standard	Class Weight (See definition)	Standard Rear and Front	Maximum Authorized (Tie Breaker)	Make and Model	No. of Cylinders, Bore and Stroke	Displacement	Comp. Ratio	Torque lb.-ft.	Max. Brake H.P. at R.P.M.	Number and Length	Governor Sta.	Make and Model	Forward Speed	Make and Model	Clear and Ty.	Drive & Torq.	Gear Ratio	Make and Model	Linking	Drum	Hand Local	CA Dimension	Side Rail Dimensions	Type
1	FWD-coast	8324D	154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
2	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
3	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
4	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
5	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
6	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
7	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
8	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
9	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
10	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
11	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
12	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
13	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
14	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
15	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
16	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
17	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
18	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
19	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
20	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
21	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
22	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
23	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
24	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
25	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
26	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
27	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
28	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
29	8324D		154 Opt	32000	12150 (11.00)	11.00	13.00	Cum H1600	4-4-36	284.10	9.80	190-2100	5-33	171	10A1120	10A1120	4 Ford	10A1120	H	18-12	2.00	W-22	529	809	T4	84	1830	CC
30	NFCOPower-3633		125	6000	33006 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
31	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
32	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
33	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
34	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
35	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
36	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
37	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
38	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
39	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
40	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
41	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
42	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
43	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
44	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447	8550	T4	84	1830	CC
45	W-214		137	16700	49450 (9.00)	9.00	20.00	C-Thrift-Mas	6-4-33	2367	6.200	112-37004	4-4	133	10A1120	10A1120	8 Chev.	10A1120	H	18-12	2.00	W-214	447					

For Key to References and Abbreviations See Page 95

(Continued from Page 108)



NEWS for Fleet Operators

HOLLEY CARBURETOR COMPANY • VAN DYKE, MICHIGAN

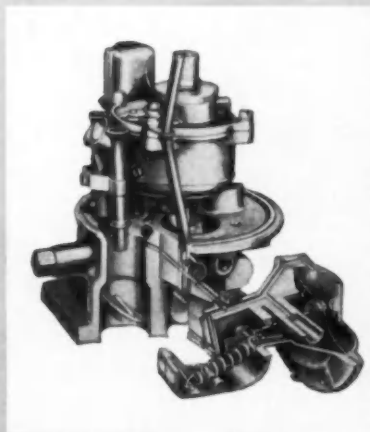
More Economy at High Speeds With Holley 4-Barrel Carburetor

The new White Mustang engines feature the famous Holley 4-barrel carburetor (Model 2140-SG) with integral governor and automatically controlled secondary throttle plates.

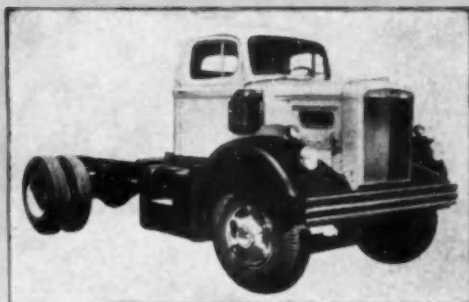
At low speeds the primary throttles are controlled by the accelerator, and secondary throttle plates remain closed.

As engine speed increases, air flow to the engine is increased through the primary bores. This creates a vacuum at the throat of the primary venturi. Thus, at high speeds the vacuum created by the increased air flow opens the secondary throttle plates increasing the carburetor capacity and automatically maintaining the proper fuel-air ratio.

This new, positive fuel metering system provides increased operating efficiency.



The Holley 2140-SG 4-barrel-truck carburetor is the first such carburetor ever to be designed with an integral governor.



Capacity of induction system in the White engine has been increased by the use of a new water jacketed manifold and a new Holley 4-barrel truck carburetor.

New White "9000" Line Equipped With Holley Carburetors

The White Motor Company has announced that its new "9000" line offers a choice of four new White Mustang gasoline engines with 145 h.p., 160 h.p., 200 h.p. and 215 h.p. ratings. The new engines are improved versions of the famous White Mustang design. The three larger engines feature the Holley 4-barrel truck carburetor (Model 2140-SG) with an integral governor.

Another significant feature of the new

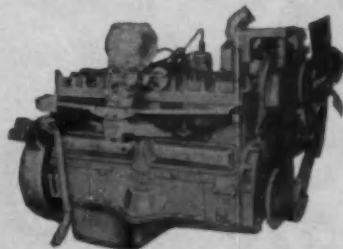
White "9000" line is the 90-inch dimension from front-of-bumper to back-of-cab. This shortened dimensional tractor can accommodate a 35-ft. high-cube trailer with a wide range of kingpin locations and remain within the 45-ft. overall length limit. The front axle, springs, steering gear and frame of this new White tractor can be tailored to handle loading up to 11,500 lbs. with complete safety.

Features of New Engine Provide Increased Power

In addition to the installation of the Holley 4-barrel carburetor on the larger sizes, the new White Mustang engine features an improved cooling system, a cylinder head (almost double the depth of the previous design), and an alloy

steel crankshaft. Increased oil pressures have been achieved with a 40% larger-capacity oil pump. Another significant development is a manually controlled under-the-hood or outside carburetor induction system that has been installed with an oversized air cleaner.

These improvements will provide greater life and reliability of the Mustang engine, as well as increased power. The new design will also increase spark plug life.



One of the four new White Mustang engines available in the White "9000", rated at 145, 160, 200 and 215 horsepower. This is the 200 horsepower, 470A Mustang engine.

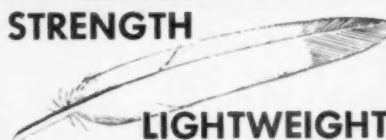
HOLLEY CARBURETOR COMPANY

11955 E. Nine Mile Road
Van Dyke, Michigan

FOR MORE THAN HALF-A-CENTURY—
ORIGINAL EQUIPMENT MANUFACTURERS FOR
THE AUTOMOTIVE INDUSTRY

For Today's Top-Profit Combination in the Extra-Heavy Classes . . .

STRENGTH



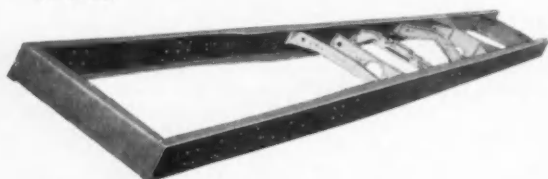
LIGHTWEIGHT

NEW AUTOCAR



Nut and Bolt Construction

Far stronger—to last longer! Special heat treated bolts and tension lock washers at the head and nut ends.

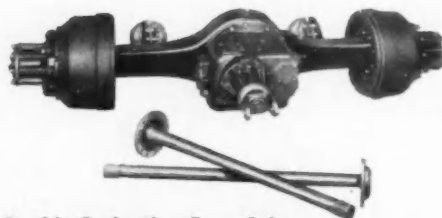


Alloy Steel Frame—Heat Treated

Rigid to hold all components in proper alignment. Flexible to take the roughest terrain. Cross-members are of lightweight aluminum alloy and formed steel.

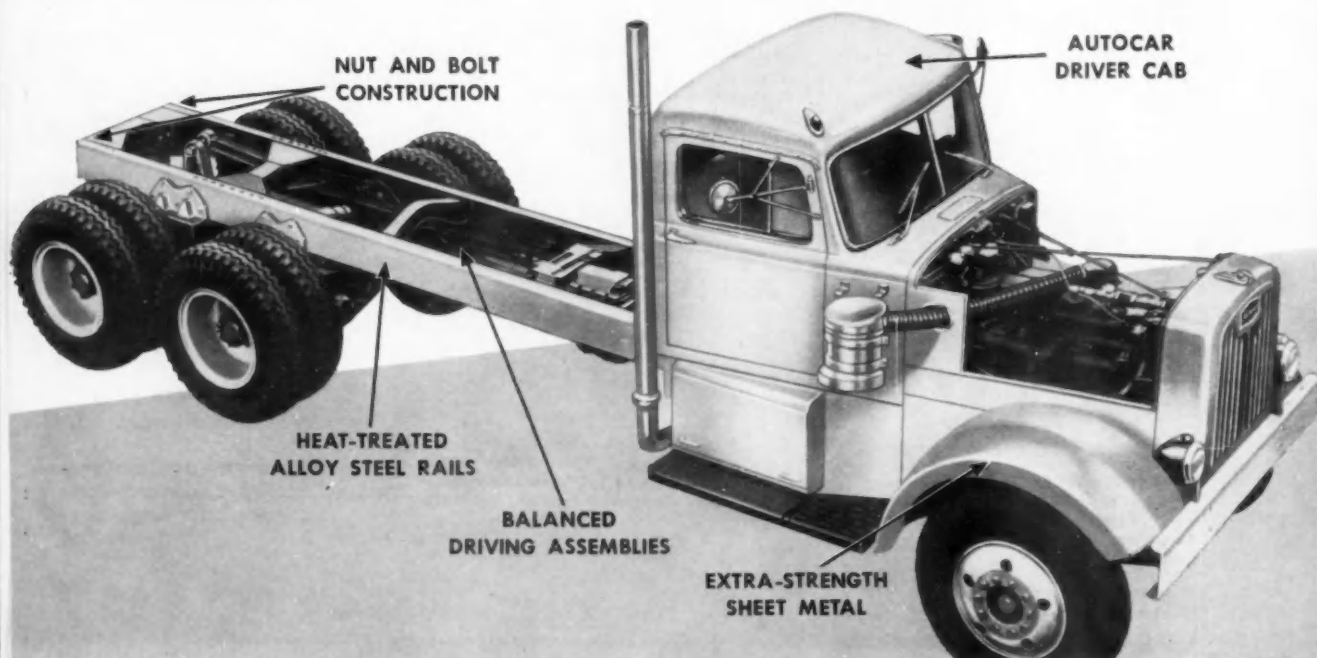
As Always . . . Autocar Strength and Quality!

No sacrifice of Autocar's famous dependability! The nut and bolt construction is here! The bushings! The great Autocar cab! And all proved structural features. There's real ruggedness and driver comfort. And it all adds up to your best operating economy . . . greatest earning power.



Double Reduction Rear Axle

Greater strength and power in the Autocar rear axle construction because of the double reduction axle—two pinions and two gears—for maximum power efficiency.



**NUT AND BOLT
CONSTRUCTION**

**AUTOCAR
DRIVER CAB**

**HEAT-TREATED
ALLOY STEEL RAILS**

**BALANCED
DRIVING ASSEMBLIES**

**EXTRA-STRENGTH
SHEET METAL**

LIGHTWEIGHT MODELS

NOW — Autocar Lightweight Design

Here's the earning power combination that is geared to today's operating requirements—rugged dependability plus lightweight design.

In these new Autocars, you can tailor to your exact needs. Maximum payloads through special weight-savings that even add strength . . . advantageous weight distribution, too. There are straight trucks and tractors—tandems in both—axle forward and axle back models—with economical diesel power. Get facts from your Autocar Representative now.

AUTOCAR DIVISION



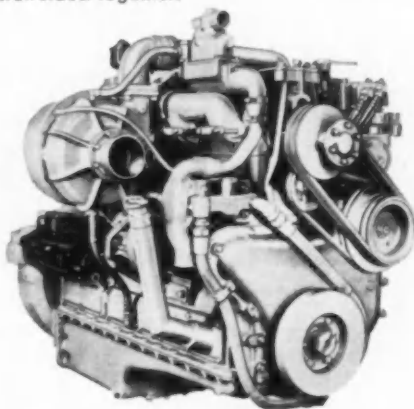
THE WHITE MOTOR COMPANY

Exton, Pa.



Built Like A Skyscraper

Weightsavings of 30% plus new ruggedness because of the exclusive cab construction. Under the lightweight skin of the aluminum cab is a frame of aluminum alloy formed channels heli-arcwelded together.

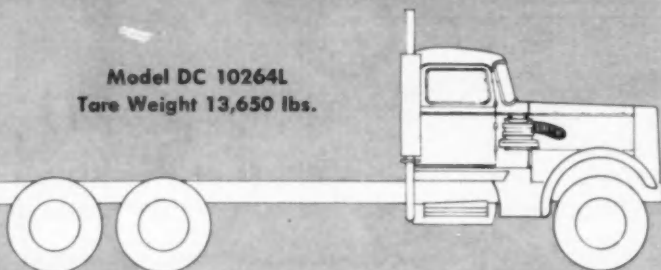


Lightweight But Powerful

The Cummins Diesel engines with the exclusive PT fuel system saves weight with many aluminum components engineered for top-profits . . . top performance . . . top mileages.

TOP-PAYLOAD WEIGHT DISTRIBUTION FOR EXTRA-HEAVY HAULING

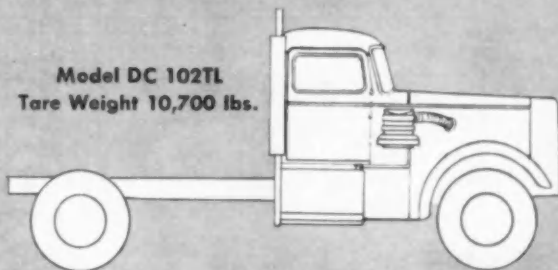
Model DC 10264L
Tare Weight 13,650 lbs.



7150 lbs.

6500 lbs.

Model DC 102TL
Tare Weight 10,700 lbs.



4500 lbs.

6200 lbs.

Line Number	MAKE AND MODEL	WHEEL-BASE	TIRE SIZES		ENGINE DETAILS				TRANSMISSION		REAR AXLE		FRONT AXLE	BRAKES				FRAME											
			Dual rear Single rear	Standard	Chassis Weight (See definition)	Max. Gross Weight	No. of Cylinders	Displacement	Comp. Ratio	Torque lb.-ft.	H.P. at R.P.M.	Number and Diameter		Length	Governor Standard	Make and Model	Forward Speeds		Make and Model	Gear and Type	Drive & Torque	Gear Ratio	Range in High	Make and Model	Location	Drum Area	Drum Material	Hand Location	C-A Dimensions (Min. Std. W. B.)	Side Rail Dimensions	Type
Six-Wheelers																													
1	Wheeler Drive-A-Way	Opt	10.00	11.00	40000	11750.0	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Wm 135CZ	5	Wm 135CZ	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
2	Available.....	Opt	10.00	11.00	40000	12350.0	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Wm 140CK	5	Wm 140CK	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
3	Available.....	Opt	10.00	11.00	40000	14700.0	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Wm 145CK	5	Wm 145CK	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
4	(D).....	Opt	10.00	11.00	60000	16250.0	6-5-16	743.17	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
5	Dodge.....	Opt	10.00	11.00	31000	7925.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
6	Dodge.....	Opt	10.00	11.00	31000	7925.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
7	Dodge.....	Opt	10.00	11.00	31000	7925.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
8	Dodge.....	Opt	10.00	11.00	31000	7925.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
9	Dodge.....	Opt	10.00	11.00	31000	7925.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
10	Dodge.....	Opt	10.00	11.00	31000	7925.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
11	Fabco (e) F201A	Opt	10.00	11.00	30000	10500.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
12	(e) F201B	Opt	10.00	11.00	30000	10500.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
13	(e) F201C	Opt	10.00	11.00	30000	10500.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
14	(e) F201D	Opt	10.00	11.00	30000	10500.8	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
15	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
16	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
17	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
18	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
19	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
20	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
21	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
22	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
23	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
24	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
25	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
26	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
27	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
28	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
29	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
30	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
31	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
32	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
33	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
34	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
35	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
36	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
37	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
38	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
39	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00	7.00	Tim F3000	61A	870	1451	FD	84	91.3x13.5x1.5	L	
40	FWD.....	Opt	10.00	11.00	22000	8790.7	6-4-15	451.6	15.5	155	2900	3.1	13	Y	Cum N1H600	12	Cum N1H600	2F	7.00										



5164-GS-B
164-pc tool set
\$34.00 down
only \$6.98 a week

\$6.98 a week

PUTS A SET LIKE THIS
ON YOUR WORKBENCH

NOW...

every mechanic can own
Snap-on Tools with
Snap-on's new pay-as-
you-earn plan

ATTENTION SHOP OWNERS AND SERVICE MANAGERS

Be sure to pass this advertisement to your mechanics — and remember, the Snap-on Credit Plan also applies to the latest in profit-building shop equipment.



2026A-ATS
automatic transmission tool set
\$10.67 down — only \$4.07 a week

Yes, it's a fact, men — you can be earning more money today with the Snap-on tools you pay for tomorrow.

TEN PERCENT DOWN puts any Snap-on tools to work for you. That's all it takes to start using the world's finest tools and shop equipment.

LOW MONTHLY PAYMENTS fit into most everyone's budget . . . make it easy and convenient to own Snap-on tools. It costs only a few dollars a month to own some sets.

UP TO 20 MONTHS TO PAY THE BALANCE, keeps payments low. The Snap-on Credit Plan offers a choice of payment periods — 6, 9, 12, 15, 18 or 20 months. Under terms like these, every Snap-on tool is within reach of all mechanics and shop owners.

It will pay you to investigate how easy it is to own and use Snap-on tools. The Snap-on man who calls at your shop can give you the simple details in a few minutes. Ask him about it.

*Snap-on is the trademark of Snap-on Tools Corporation.

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For Key to References and Abbreviations See Page 95

National Presents

cobalt & silver



INCREASES
RESISTANCE
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UP TO

300%

GREATEST KILLER
OF BATTERIES

IN THE **NEW**

BUS - TRUCK - DIESEL BATTERY

Get the Power-Producing — Life-Saving Story
From Your National Dealer

**GOULD - NATIONAL
BATTERIES, INC.**

St. Paul 1, Minnesota

*Based on S.A.E. Minimum Requirements

Nation's Biggest Truck Shop

Continued from Page 69

tool benches. These are wheeled onto the floor as needed.

"Service" Department

The "Service" department routinely lubes, fuels and repairs every PIE tractor at the end of each trip. The department has

four 70-ft long, recess-lighted pits, can handle 200 lube jobs in 24-hours, up to 300 if "pushed." A rig comes off the pits, lubed, every 15 minutes. (See photo for Lincoln equipment used.)

Each pit is unitized—has its own air, water, grease and fuel

oil. Seventy-foot pits are 10-ft longer than at Denver. Reason: so that even when servicing a road-limit 60-ft rig, five feet at each end of pit is open, giving mechanic easy access via end-pit stairways. At Denver, long rigs sometimes make it difficult for mechanics to get under the chassis.



"Angled" service aisles—five of them—are also noteworthy. The "why" of the layout is obvious when you consider that some rigs coming off pits may need just a few routine repairs while others require a lengthy diagnosis of some engine "squawk." Were maintenance aisles "straight-line," there'd be no way to route one truck around another. So a few "sick" rigs would hold up the others. Thus, the "angled" aisles, which finger off the pits at 45-deg. That's turning radius enough so that tractors with only routine symptoms can be shunted to fast-service lines. "Sick" rigs, on the other hand, shunt to one of several specialized lines. One, for example, has a built-in Clayton dynamometer—the test equipment modified and installed with mirrors so its control panel may be read by a mechanic in the cab.

The dynamometer (one of two in the shop) shows: (1) fuel flow to fuel pump; (2) exhaust pressures; (3) vacuum at intake manifold; (4) engine rpms; (5) fuel temperature; (6) fuel pressure; (7) speed in mph.

Thus, a rig may be "road run" right in the shop, its trouble properly diagnosed and repaired.

Radiantly-heated floors, as at PIE's Denver shops, keep creeper-working mechanics warm, reduce

(TURN TO PAGE 116, PLEASE)

STOP

"ROUGH RIDING"

YOUR TRUCKS !

USE A
HANDY
GOVERNOR

KS

KING-SEELEY CORPORATION
ANN ARBOR, MICHIGAN



Edward Onka, Vice Pres. and Gen. Mgr. of Millstone Bus Lines (left) and Ralph Handler, Cooper Rep., discuss the dollar-saving service delivered by a new Cooper Mile-Master Extra Tread.

Cooper Mile-Master Extra Treads give Millstone 30% more mileage, cut down-time 25%

Millstone Bus Line operates 50 pieces of equipment in the New Brunswick-Summerville area of New Jersey. Both low-cost mileage and safety are prime factors in judging a tire's performance, since Millstone's operation includes school bus, city transit and charter service.

Million Miles A Year. Millstone logs much of this mileage over high crown roads, where fast and irregular tread wear is a major cost problem. Yet new Cooper Mile-Master Extra Treads easily take this rugged test of performance in stride . . . day in and day out.

From Skeptic To Booster. Here is a direct quote from this Mile-Master Extra Tread user: "We were skeptical when first contacted by the Cooper representative and honestly doubted his claims for this new tire, factual as they were. Now that we have used Mile-Master Extra Treads for the past 12 months, we go out of our way to boost them right down the line. Our records show some 30% more mileage, while down-time has been cut about 25%. Changing to Cooper



Millstone Buses Like These Log A Million Miles A Year

Mile-Master Extra-Treads has meant substantially lower tire costs for us."

Phenomenal Mileage. You have to see the extra mileage pile up on your own service records to appreciate the savings delivered by this all new Cooper tire with its 40% deeper tread. Many truck operators report up to 65% more miles from Mile-Master Extra Treads.

Exclusive Shock-Guard Construction gives more uniform strength and cushioning to the Cooper Mile-Master Extra-Tread — actually makes possible an almost damage-proof tire body that delivers up to 4 and 5 safe recaps on top of the phenomenal original mileage you get.

You'll Be a Booster, Too. Try Cooper Mile-Master Extra-Treads and step up profits. The low-cost mileage and safety of this all-new and specially

engineered tire are as near as your telephone. Call your Cooper truck tire dealer today. Or write Dept. 1A direct for complete information if you prefer. The Cooper Tire & Rubber Company, Findlay, Ohio.



NEW WHITE 3000



SPECTOR looks for 20% improvement in tractor utilization... real operating savings... substantial payload boosts... with its new fleet of White 3000 Diesels according to C. L. Lunt, vice president—operations, W. Stanhaus, president and Simon Fisher, chairman of the board, of Spector Freight System, Inc., of Chicago.



New economy and fuel savings

Powered by the Cummins JT6B Turbodiesel Engine, the new White 3000 Diesel has the power for high-mileage, tight schedules—the acceleration for rough terrain and grades. Pre-selection of horsepower, fuel economy and low maintenance cost are Turbodiesel exclusives that mean extra earning power... for years!

DIESEL FLEET FOR

ANOTHER SIGNIFICANT WHITE PAYLOAD ADVANCE

WHITE—the pioneer in highway payload design—now achieves new earning power advantages with this new White 3000 Diesel that will add pounds and cubage to every trip.

20% GREATER PAYLOAD CAPACITY ON FRONT AXLE

Front axle capacities on the new White 3000 go up to 12,000 lbs. and that means extra payload—as much as 20% greater than other make tractors. Excellent weight distribution adds to the profitability of this new White.



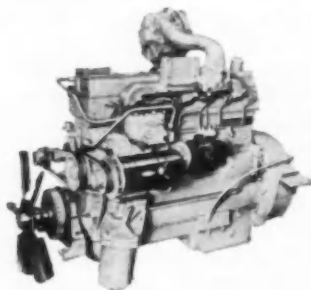
LESS TARE WEIGHT ON CRITICAL DRIVE AXLE

Functional design of the new White boosts payloads, especially in states where GVW is controlled by axle weights only and states with liberal "L" dimensions. Substantially improved load factor and load tolerance.



COMPLETE MANEUVERABILITY WITH 35 FT. SQUARE NOSE TRAILER

Shorter wheelbase of the White 3000—105", 109", 119½", and 125½"—means wonderful maneuverability and time savings. Accommodates most extreme type trailers within legal limits—even big "reefer" units.



SPECTOR DRIVERS CALL IT THE WHITE 3000 "SPACE SHIP"

Look at the clean cab interior. No floor obstructions. The White 3000 cab is roomy and comfortable. It saves steps... permits easy step in or out from either side. It's the greatest cab on the highway!

Visibility—no other cab comes near it for safety and driving ease. Its safety record proved by billions of miles.

Multi-functional frame structure and use of rugged, alloy steel adds durability and improves the ride. The power-lift cab means complete front-end accessibility—instantly!



SPECTOR

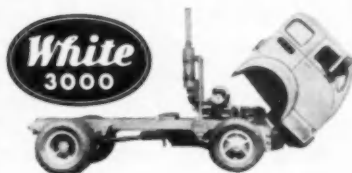
NOW it's the WHITE 3000 Turbodiesel for Spector Freight System, Inc., of Chicago!

Today's payloads and schedules call for a truly modern tractor and this is it! White's great "3000" with all its functional advantages and top earning power—now with Turbodiesel Power!

Proved over billions of low-cost miles in the most profitable fleets across the country, the White 3000 now has even greater advantages that are unmatched for performance... anywhere!

The first of these new "3000" Diesels are now in Spector mainline service... on 150,000 annual mileages with bigger payloads.

It's the newest star in White's All Star line of highway tractors—engineered to your exact operating needs. New payload design. New, exclusive mechanical advantages. Really designed for the driver, too!



THE WHITE MOTOR COMPANY

Cleveland 1, Ohio

FOR MORE THAN 55 YEARS
THE GREATEST NAME IN TRUCKS

Biggest Truck Shop

Continued from Page 112

complaints of arthritis and back-ache.

And, as at Denver and elsewhere along the company's routes, lubricants are specialized—to No. 140 gear grease (Mil 2105) and SAE 30, heavy detergent oil (Mil 2104).

"We're sticklers," admits PIE's director of fleet maintenance Jack W. Riesing, "for military spec lubricants."

Fast Servicing

To speed a rig's servicing, PIE (departing from Denver shop-practice), now stations a mechanic in each pit. His job: to write-up a work order before tractor exits pit, thus route it either to the fast-service line or to the dyna-

meter line for more lengthy testing.

As it is, a rig processes through the service department in an average of 45-minutes. This includes 15-minutes over the pits, another half hour on the service line.

Backed by a stock room shelving a \$150,000-\$175,000 parts inventory, and with tire shop and battery recharger close-by, the service department aims at being a fast-moving, yet efficient operation—which it has to be to service more than 300 line-haul tractors, another 223 tanker trucks and their 254 trailers, in addition to nearly 1000 line trailers, pickup and delivery trucks.

Overhaul Shop

PIE's "Major Overhaul" shop gets tractors after every 180,000 miles (for a "D" check), again at 360,000 miles (for an "E" check). Difference lies in degree of overhaul. For the "D" check, major assemblies are stripped off and dismantled. But the tractor, otherwise, is left intact. On the more extensive "E" check, rig is stripped to its frame, the frame sand-blasted, run through the shop's paint booths (dry type—there are two of them, each big enough to handle a 60-ft unit).

"Factory" methods rule the overhaul shop. Again, it's a production set-up, rigs moving from steam-cleaning down one of two aisles, the aisles flanked either side by some 17 specializing "shops," each assigned rework or installation of an assembly.

Feeder Shops

These "feeder" shops are broken down into "heavy" and "light." Heavy shops, along one side of the overhaul line, are specialized to radiators, front ends, rear ends, clutches, transmission - differentials, engine rebuild (and next to the engine rebuild section is the other dynamometer, where rebuilt powerplants can be check-run).

Flanking the line's other side are "light" shops, specialized to pistons, rods, rockers, heads, electrical and metalworking, plus
(TURN TO PAGE 119, PLEASE)



ANNOUNCES

HYDRAULIC TRUCK AXLE TUBE PULLER



**SAVE HOURS
OF LABOR**

AND DOWN TIME ON EVERY PULLING JOB

OTC 50 Ton hydraulic unit removing tube from truck axle housing—set up and pulling takes only a few minutes.

With this new OTC 50 Ton hydraulic puller set, truck axle tubes may be removed (even if broken) and installed in minutes instead of hours. Assembly is simple and positive—tubes are removed without damage—and installed without distortion. Costly *Down Time* is cut by hours.

The OTC 50 Ton hydraulic unit is adaptable to hundreds of similar jobs. With the many OTC pullers and adaptors available it may be used as a portable power unit in shop or field, to push, pull, spread, lift, and straighten.

Shops already equipped with the 50 Ton unit need only to add the appropriate pulling and installing attachments.

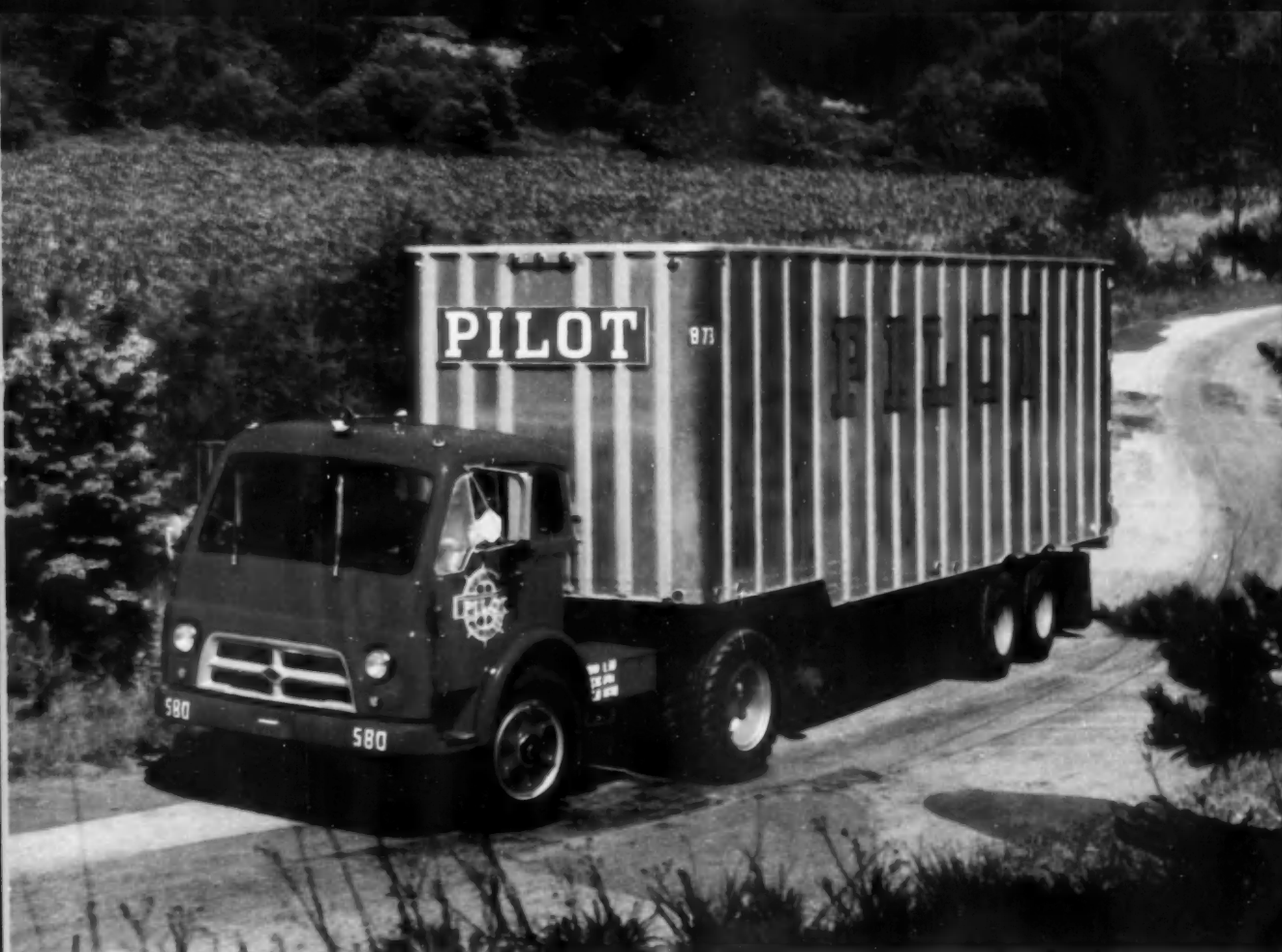
SEE YOUR JOBBER OR WRITE US FOR COMPLETE INFORMATION



One man can quickly install a truck axle tube without distortion with a new OTC 50 Ton hydraulic unit.

FREE NEW
HYDRAULIC
PULLING BOOKLET

OWATONNA TOOL COMPANY 341 CEDAR STREET
OWATONNA, MINNESOTA



"Diamond T Turbo-diesels cut 10% from our running time—save us \$3,000 a year apiece in fuel cost alone."

AND with no sacrifice of payload, since they weigh approximately the same as the gasoline-powered tractors we formerly operated." That's right out of R. Y. Sharpe's letter—President of Pilot Freight Carriers, Inc., of Winston-Salem. And Mr. Sharpe knows, because he has put 100 of these Diamond T Tilt-Cab 723CJT's into service this year.

He adds, "These Diamond T 723CJT's are the ideal tractor for our service. Our drivers say the Diamond T's ride better and handle easier than any truck or tractor they have ever driven. The superintendent of maintenance reports them the easiest

to work on that we have ever had in the shop."

Naturally, Mr. Sharpe is pleased. Naturally, progressive fleet operators in all parts of the country are making their own comparisons—and discovering the sensational savings and superiorities of Model 723CJT.

Make Your Own Test

Diamond T builds a complete line of trucks and tractors from 2 tons to giant diesel six-wheelers—both conventional or Diamond T Tilt-Cab models. Every Diamond T is "custom built." See your dealer or write Diamond T Motor Car Co., Chicago 23, Ill.

DIAMOND T TRUCKS

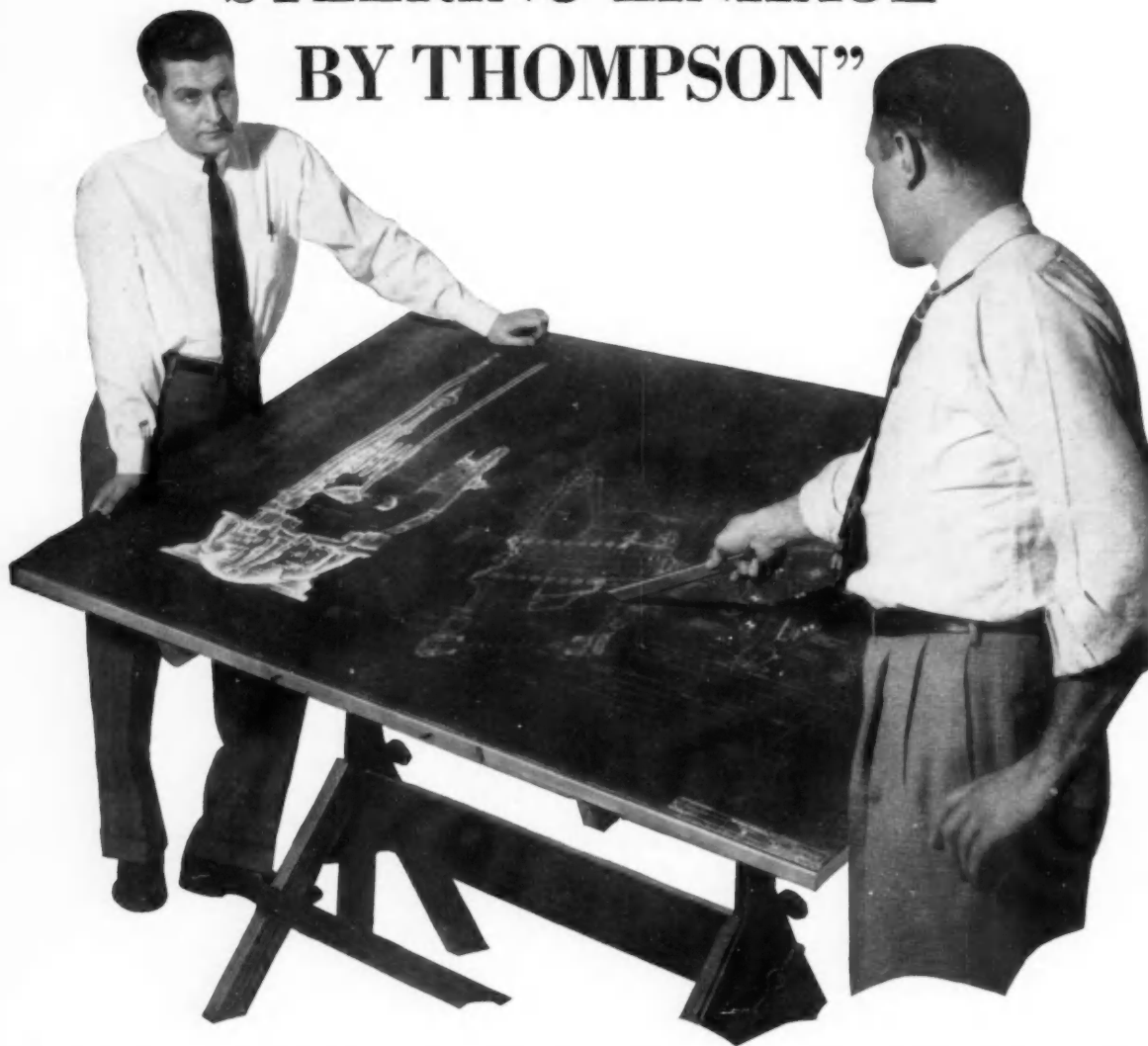
Established 1905



**The Diamond
is for Quality**

"Let's be sure to specify

STEERING LINKAGE BY THOMPSON"



MORE and more automotive manufacturers today specify "Steering Linkage by Thompson" when designing and planning their cars, trucks, buses and tractors of tomorrow.

And for good reason—for they've learned that "You Can Count on Thompson" as a dependable source of supply. And they've learned, too, to count on Thompson for important developments in ball joint design, for steering linkage, as well as other applications. Thompson's steering linkage units are in yesterday's cars and today's cars. And they'll be in tomorrow's cars, too.

Typical of these developments is the revolutionary Thompson-engineered front suspension ball joints, the greatest advance in automotive front suspension in 20 years. For over 50 years Thompson has played an important role in the automotive world. If you use steering linkage assem-

blies, specify "Steering Linkage by Thompson". For details on how Thompson's skilled steering engineers can help you with your steering linkage developments, write, wire or phone Thompson Products, Inc., Michigan Div., 7881 Conant Ave., Detroit 11, Michigan, WA 1-5010.

Thompson Products

MICHIGAN DIVISION

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Biggest Truck Shop

Continued from Page 116

Magnaflux inspection and welding.

When a rig comes in for either "D" or "E" check, its assemblies are stripped and steam-cleaned. Steam-cleaner is a gas-fired Malsbary, rated 1,500,000 Btu/hr. Pistons and sleeves (as many as 60 in one batch) may be basketed, hoisted into a Detrex degreaser. From there, they flow through a Vapor Blast unit, for decarbonizing.

Meantime, steam-cleaned and degreased, other assemblies are already being reworked in line shops, readied for reassembly.

Typical of "heavy" line shops is the radiator section. It's equipped with a big water tank where radiators are routinely leak-tested, pressured with 5 psi air.

On an average, two completely overhauled rigs exit the shop every 24-hours.

"More than enough," says fleet maintenance director Riesing, "to handle the job."

No Stalls

Riesing points out the absence of stalls in both service and overhaul departments has put maintenance on a production-line basis.

"Stalls—the old maintenance way—is something less than effi-

cient. For one thing, it's easy to forget a rig. Another, stalled rigs are difficult to work on. And not nearly as many mechanics can be servicing at one time. Then, too, stalls don't allow you to use your equipment to maximum . . . nor to maximize equipment usage," Riesing says.

The only thing even approaching "stalls"—and they're not even closures—are the eight trailer spaces where line-trailers are

overhauled. "Overhaul" doesn't involve lubrication. This is done at the "Service" area's pits. With trailers backed into their spaces—and neatly aligned—one man working from a mobile ladder can reach their refrigeration motors (if any), specialize himself to this job.

"Everywhere possible," says Riesing, "our men are specialized."

(TURN TO NEXT PAGE, PLEASE)



Here's The Bright New Package— FOR *Lamson* AUTOMOTIVE FASTENERS

Take a good, long look at that handsome new label and package. You'll see it on many a shelf in the future.

Easy to read? Right! Just hold this ad at arms length and you'll see what we mean. It tells you the whole "inside story", and it can't come off because it's printed on the box.

That box is something, too. Made of SOLID KRAFT TUFBOARD®, it's strong and durable, stacks easily and is of tough, bonded construction . . . no staples to come apart.

Yes, the new Lamson STACK-PAK packaging ends package woes for jobbers and dealers alike. Say Lamson . . . for the best . . . inside and OUT!



"Aw, go on . . . Beat it . . . Just watch your speed!"

The **LAMSON & SESSIONS Co**

1971 West 85th Street • Cleveland 2, Ohio
PLANTS AT CLEVELAND AND KENT, OHIO • BIRMINGHAM • CHICAGO

Biggest Truck Shop

Continued from Page 119

This principle is carried to efficiency because PIE trends to standardize when it comes to tractors and trailers. All refrigeration equipment, for example, are the same make. And most engines are Cummins (from 175-hp turbocharged JTs to 250-hp turbo-

charged units, plus the new pancake engine designed into PIE's XD-30 tractor).

Outside Service

Only "sick" trailers come into the service shop—unless they're hooked to a tractor. More usually, trailers are routinely greased, their tires changed and aired, by three gasoline-engined "yard doctors," which rove the terminal yard. (Oct. '55, page 83.)

As for the shops—they do every repair chore but three. They don't recap tires, repair springs nor grind crankshafts (these jobs being contracted out).

Terminal Operation

Among the many innovations at the terminal is a low-band radio link between dispatcher's office and hostler tractors, which shuttle trailers to and from the dock.

And, though PIE earlier discussed the possibility of closed-circuit TV to monitor cargo handling, this idea hasn't been incorporated into the new terminal.

Weighing Vehicles

Just now being installed near the terminal's exit is a scale—a device which will allow drivers automatically, and without leaving their cabs, to weigh each axle, get a printed weight-tape. Scale is arranged so driver can move his rig's front axle onto the scale, wait while a traffic-like signal shows red. When it turns green, he knows front-axle's weight has been recorded, and moves ahead, until his tractor's drive wheels are on the scale, waits for the green signal, moves ahead once more, to weigh his trailer axle. Weights are automatically printed on a tape which comes out of the machine within reach of the cab window.

But, though PIE could well claim the U. S.'s biggest, perhaps busiest terminal and shops, it would rather, as fleet maintenance director Riesing says, "work toward the most efficient maintenance set-up . . . anywhere."



It's performance that promotes a preference for Eberhard truck body hardware.

Long life and functional operation of each "E" item, on the job day in and day out. Each lock, hinge, door holder or item performing its intended service to the advantage and satisfaction of owner and operator alike.

That's why "up and going" body manufacturers like Woerber Auto Body & Mfg. Co. of Denver, Colo. can rely upon Eberhard for a typical body job as shown here.

EBERHARD MANUFACTURING COMPANY
EVARTS AVE. • CLEVELAND 4, OHIO
 Division of the Eastern Malleable Iron Company



END

Please Resume Reading Page 70



DODGE TRUCK OPERATORS
Here's a profitable **MAINTENANCE TIP!**



Stay with **MōPār** depth-guarded oil filter **CARTRIDGES!**



All Dodge Engines equipped with this **FULL-DEPTH OIL FILTER**
NEED

MoPar depth-guarded cartridges with the **SPRING** and **CONE**

Chances are your Dodge Trucks are equipped with oil filters that utilize the famous Deluxe method of l-o-n-g oil travel. These filters not only strain or filter oil, but *actually cleanse* oil of contaminants before they can form harmful sludge. The one sure way to make certain

that you keep on getting the oil cleansing performance these filters were built to deliver, is to replace each cartridge element regularly with a MoPar Depth-Guarded Cartridge. Engineered to take maximum advantage of the full-depth oil travel in your MoPar Full-Depth Filters,

Only this Specially-Engineered Construction gives you
DEPTH-GUARDED FILTRATION:

MōPār assures . . .

1. A quick source of supply from your Plymouth, Dodge, DeSoto and Chrysler dealers and MoPar Parts wholesalers.
2. Uniform Oil Flow.
3. Controlled Density.

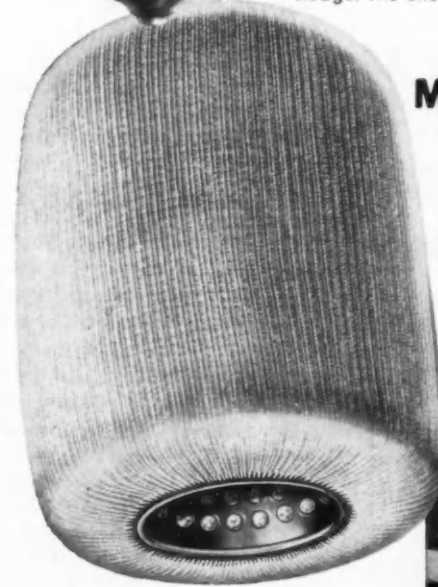
the **SPRING** provides

DENSITY CONTROL
... guards against cartridge collapse, the worst enemy of full-depth filtration. Also prevents filtering medium from wadding and causing channeling of the oil.



the **CONE** delivers **UNIFORM OIL FLOW**

... assures uniform oil distribution from bottom in top of the cartridge at a controlled rate of flow.



Insist on
MōPār
DEPTH-GUARDED
OIL FILTER CARTRIDGES

for your **DODGE FULL-DEPTH Filters!**

MoPar Parts Division—Chrysler Corporation

National Auto Show Truck Exhibits

Continued from Page 83

prior to the show the exposition will be the first gun in a concerted "national" introduction of new models in many years. Passenger cars will occupy the second and third floors of the Coliseum, with the fourth floor to be used as a "work" area for exhibitors.

Reason for the top billing trucks will get is simple: commercial vehicles, particularly heavy-duty units, have grown to such spectacular stature in the past decade or so that it would be difficult to visualize a national show of this proportion without them. Rather than

place emphasis on individual products, truck makers through a united effort have decided to present an "institutional" theme throughout most of the area to tell dramatically the story of the trucking industry in the country's economy. Special budget provisions have been made by the industry for the development of the institutional displays.

Prominent among the dramatic truck decorations and special features will be a 150 x 8 ft mural near the main entrance to the Coliseum, so placed as to attract the attention of everyone who enters the building. In fact, particular attention will be given to directing the audience through the truck display area. The colorful abstract mural will show trucks pouring into and out of a large city.

The Truck Exhibits

Every manufacturer, of course, will have individual exhibits of his latest vehicles and equipment, and special attractions will be offered by many. Fleet operators can expect to see a host of new equipment, some of which will be announced by manufacturers starting this month.

Of interest to fleet operators will be animated cutaway exhibits of transmissions, engines and other truck components. Fleetmen also will find the exposition an excellent meeting ground for discussion of their problems with factory representatives, distributors and dealers. Prospective buyers will have the opportunity to examine and compare competitive products in addition to being guided on their individual fleet needs. To the public in general, the extravaganza will exemplify the important key role trucks play in supporting the nation's expanding economy.

Admission to the show will be 90 cents for adults and 50 cents for children. The show will open at noon on Saturday, Dec. 8, and daily hours thereafter will be from 11:00 am to 11 pm. Plans for possible distribution of complimentary tickets to fleet operators by factories have not been finalized.

END

Please Resume Reading Page 84



HERE'S A REAL PACESETTER that is in every truck operator's dream! Lightweight aluminum body that's every bit as sturdy as a comparable all steel body but is 4000 pounds lighter (11,100 pounds as against 15,100) . . . 4000 pounds less body weight converted into 4000 more pounds of coal, lime, sand, gravel, asphalt, cinders, fertilizer or bulk grain! Profitable? Just look! . . . Multiply the additional 4000 pounds per load by the number of daily trips and you begin to see what a Penn Aluminum Body means to your profit picture. Gasoline consumption and tire wear are reduced by the lighter body weight, too.

Penn's Front Mounted Telescopic Hoists are the product of 23 years' experience.

Safer-Lighter-Efficient-Economical

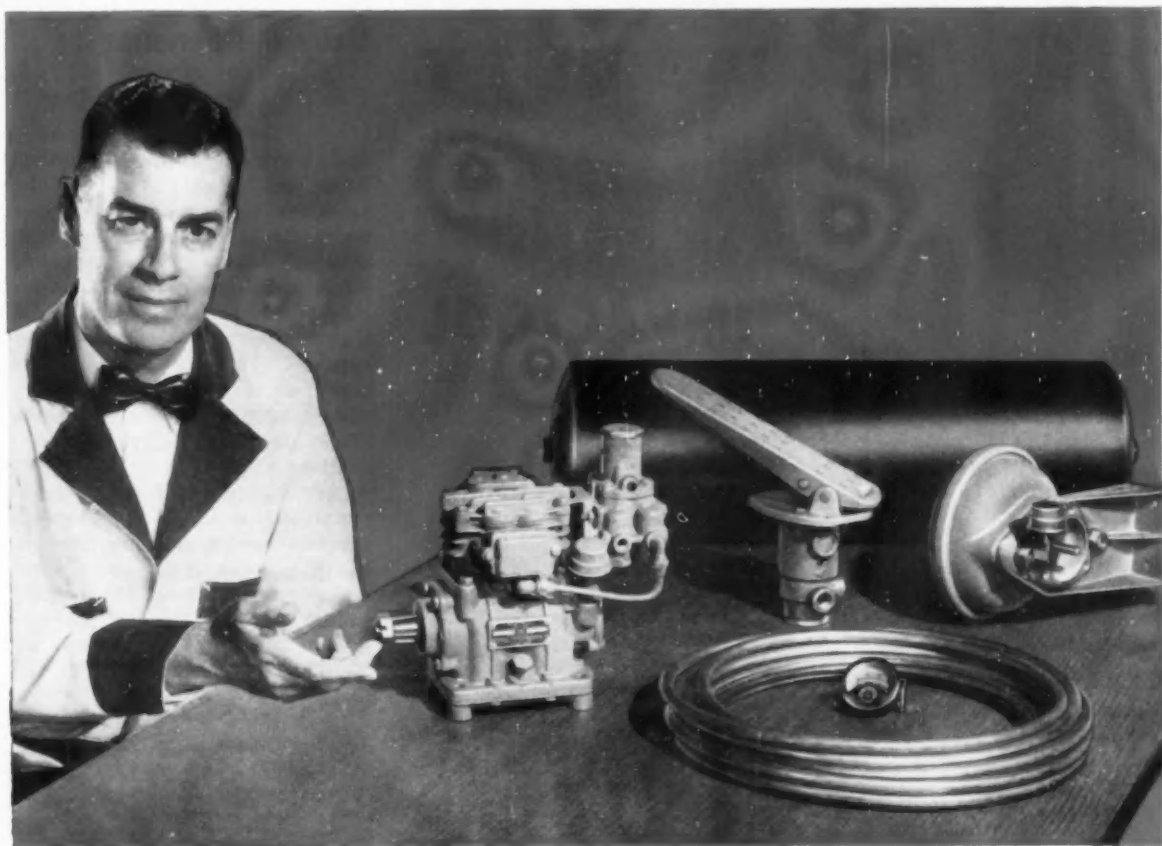
The single hoist requires fewer parts and less maintenance. It places more weight on the tractor axle and less on the trailer chassis axle. 95% safer—its greater stability is obtained by eliminating body overhang and lifting the load from the front.

HAUL MORE—MORE PROFITABLY IN PENN

PENN BODY DIVISION

HOCKENSMITH CORPORATION

PENN, PA. Call: Jeannette, Pa., Lafayette 3-5401 . . . Pittsburgh, Electric 1-1242



Install the world's safest, smoothest braking power on your lighter trucks, too

Bendix-Westinghouse Kits make Conversion to Air Brakes easy!

It's a fact generally accepted by trucking men everywhere that air brakes are the world's smoothest, safest stopping power. That's why today so many fleet operators are converting their short-haul, lighter weight trucks to air brakes. If you're missing all the benefits of these powerful brakes, why not stop in at your local Bendix-Westinghouse distributor's for an estimate on the

cost of converting your equipment to air. He has a kit designed for your vehicle which can be installed in much less time at much less cost than you'd imagine.

While you're there ask him about air operation. He'll tell you about faster, safer application and profit-building flexibility that lets you haul air-equipped trailers. What's more, he'll show you why air operation adds longer life to brake linings, drums, tires and chassis and how it eliminates drain on engine life. So drive in today . . . you'll find your Bendix-Westinghouse distributor listed in the Yellow Pages under brake service.

Bendix-Westinghouse



AIR BRAKES

BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY • General Offices and Factory—Elyria, Ohio • Branches—Berkeley, Calif. and Oklahoma City, Okla.

NEW HEAVY DUTY SELECT-AIR* IMPACTOOL

weighs only 5 lbs.



\$127⁵⁰

SIZE 403

***AIR REGULATOR LETS YOU
SELECT THE POWER YOU WANT!**

Now, a premium quality, top performing, high-speed Air Impactool is available at a price every mechanic can afford. The light, compact Select-Air Impactool gives you extra power for all but the largest nuts on cars and trucks—lets you control its power for lighter jobs. Standard attachments easily convert it into a multi-purpose tool.

- reamer
- screw driver
- taper
- wire brush
- hole sawer
- wood borer
- stud driver

Ask for a demonstration of the amazing Select-Air Impactool in your shop. Call your Ingersoll-Rand jobber now.

18-435

Ingersoll-Rand

11 Broadway, New York 4, N.Y.



AIR & ELECTRIC

Daily Bus Servicing

Continued from Page 71

and sweeps out the coach. He then dusts the coach on the inside, especially horizontal plane surfaces which are prone to collect dust. One serviceman makes a complete circle of the coach inspecting for burned bulbs and flat tires. He then washes the windshield, mirrors and lights. The other serviceman has been fueling the coach with an automatic shut-off nozzle. While the tank is filling he is inspecting the oil level, pouring in water as needed and draining the compressor trap. He then records the fuel he has installed, the oil, the water and if the compressor trap was oily. He is also responsible for a visual check of the compressor to determine if it has an oil leak. This he records on the COL card.

By this time the first serviceman has boarded the coach and replaced the daily equipment card. If there are complaints the coach is driven to the service hoist and taken care of. Some complaints are of such nature they can be stamped "Leave for Inspection." Any safety item must be corrected before the coach is released for service. After complaints are corrected or if no complaints are on the equipment card

FIG. 2. Special CTOO and COL report uses standard fuel and oil record card. ATOO report is on similar card

CTOO - COL											
DATE 9/7/56											
Box No.	Fuel	Oil	Box No.	Fuel	Oil	Box No.	Fuel	Oil	Box No.	Fuel	Oil
122	✓	✓	150	✓	✓	201	✓	✓	252	✓	✓
126-43	✓	✓	151	✓	✓	202	✓	✓	253	✓	✓
129-43	✓	✓	152	✓	✓	203	✓	✓	254	✓	✓
130-43	✓	✓	153	✓	✓	204	✓	✓	255	✓	✓
131-42	✓	✓	154	✓	✓	205	✓	✓	256	✓	✓
132-42	✓	✓	155	✓	✓	206	✓	✓	257	✓	✓
133-42	✓	✓	156	✓	✓	207	✓	✓	258	✓	✓
134	✓	✓	157	✓	✓	208	✓	✓	259	✓	✓
135	✓	✓	158	✓	✓	209	✓	✓	260	✓	✓
136	✓	✓	159	✓	✓	210	✓	✓	261	✓	✓
137	✓	✓	160	✓	✓	211	✓	✓	262	✓	✓
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141	✓	✓	164	✓	✓	215	✓	✓	266	✓	✓
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144	✓	✓	167	✓	✓	218	✓	✓	269	✓	✓
145	✓	✓	168	✓	✓	219	✓	✓	270	✓	✓
146	✓	✓	169	✓	✓	220	✓	✓	271	✓	✓
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152	✓	✓	175	✓	✓	226	✓	✓	277	✓	✓
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161	✓	✓	184	✓	✓	235	✓	✓	286	✓	✓
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262	✓	✓	285	✓	✓	336	✓	✓	387	✓	✓
263	✓	✓	286	✓	✓	337	✓	✓	388	✓	✓
264	✓	✓	287	✓	✓	338	✓	✓	389	✓	✓
265	✓	✓	288	✓	✓	339	✓	✓	390	✓	✓
266	✓	✓	289	✓	✓	340	✓	✓	391	✓	✓
267	✓	✓	290	✓	✓	341	✓	✓	392	✓	✓
268	✓	✓	291	✓	✓	342	✓	✓	393	✓	✓
269	✓	✓	292	✓	✓	343	✓	✓	394	✓	✓
270	✓	✓	293	✓	✓	344	✓	✓	395	✓	✓
271	✓	✓	294	✓	✓	345	✓	✓	396	✓	✓
272	✓	✓	295	✓	✓	346	✓	✓	39		

BRAKE COMPLAINT	
Bus No. <u>175</u>	Date <u>9/7/56</u>
Shoe <u>Squeal</u> <input checked="" type="checkbox"/> Grob <input checked="" type="checkbox"/> Release <input checked="" type="checkbox"/>	
Pulls <u>L</u> <input type="checkbox"/> <u>R</u> <input type="checkbox"/> Erratic <input type="checkbox"/> Air <input type="checkbox"/>	
INCOMING CONDITION	
Adjustment <u>1/8"</u>	Shoe Thickness <u>3/8"</u>
LF <u>1/8"</u> RF <u>1/8"</u>	LF <u>3/8"</u> RF <u>3/8"</u>
LR <u>1"</u> RR <u>1"</u>	LR <u>3/4"</u> RR <u>3/4"</u>
Roll spring <u>OK</u>	Roller pins <u>OK</u>
Front tire inflation: L <input checked="" type="checkbox"/> R <input checked="" type="checkbox"/>	
Wheel nuts <input checked="" type="checkbox"/> Driver <u>Richard</u>	
Remarks: <u>Found dirt under back end of application valve pedal - cleaned</u>	
Mechanic <u>Holloway</u>	

FIG. 3. Because of its safety importance, each brake complaint is reported

the coach is put away in the storage building until the next departure.

Air Tank Drain

After the coach is placed away, the late serviceman comes along and opens the air tank cocks. These are left open as long as possible to get a good drain. Just before it is time for the coaches to go out in the morning these valves are closed and at this time a record is taken as to how much oil drained out on the floor. This is our "Air Tank Drain" card and points to faulty air systems which leak and overwork the air compressor. Our ATOO—CTOO—COL records make it easier to locate and correct troubles in the air system.

As the time approaches for the coaches to depart in the morning, the late man and the sweeper start each and every coach and pump up air pressure to cut off. This assures us of a coach which is ready for departure. It also is a safe coach because the air pressure is up so that it can be shifted and the brakes will operate. At this time a last final check of the tires are made to be sure none have gone down because of a slow leak during the night. The coach is then turned over to the driver and we can expect that it will do a good job.

END

Please Resume Reading Page 71

NOW... meet PRESCRIBED AUTOMOTIVE TORQUES with an IMPACTOOL

FAST!
EASY!
SURE!



Size 5UT Electric Impacttool with Torque Control



with a rugged, adjustable, steel TORSION BAR

- **SIMPLE TORQUE SETTING**—torsion bar adjusting sleeve is clearly calibrated for changing torque with easy-to-use torque jig.
- **SETTING REMAINS CONSTANT**—until the adjustment is changed.
- **ELIMINATES "OVER-TORQUE"**—the torsion bar automatically shuts off the tool when preset torque is reached.
- **REVERSIBLE**—full power in reverse.
- **REMOVABLE TORSION BAR**—quickly converts to a standard Impactool.
- **NO CLUTCH**—to wear, slip or require adjustments.

18-337

Ask your Ingersoll-Rand jobber now for a free demonstration of this amazing Impactool in your shop!

Ingersoll-Rand

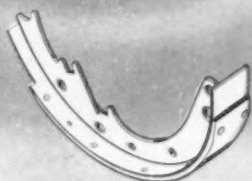
11 Broadway, New York 4, N. Y.



Originators of Impactools

AIR & ELECTRIC

STOP with



DELCO LINED BRAKE SHOES
Made and assembled to original equipment specifications.



WHEEL CYLINDER REPAIR KIT
All parts necessary to put wheel cylinder in normal operating condition.



MASTER CYLINDER REPAIR KIT
All parts needed to put master cylinder in normal operating condition.

Delco Super 11 brake fluid improved with HTD—original equipment in General Motors cars and trucks—is efficient at 50° higher temperatures, improves braking at all temperatures, under all operating conditions. Chemically stable, compatible with the rubber and metal parts in the brake system—and with greater resistance to corrosion and evaporation—Delco Super 11 *exceeds* all S. A. E. and government specifications for heavy-duty hydraulic brake fluid. Do yourself a favor—order Delco Super 11 improved with HTD *today!* Packed in convenient containers, from pint cans to 54-gallon drums. Available everywhere through the United Motors System or your General Motors car or truck dealer.

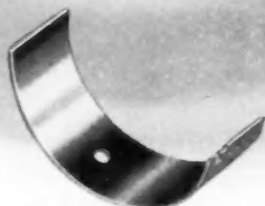
General Motors Values from



Moraine Products

Division of General Motors, Dayton, Ohio

GO with



MORaine-400 BEARINGS—
toughest automotive engine bearings
ever made.



MORaine BI-METAL BEARINGS—
precision built to original equipment
specifications.



M-100 BEARINGS—
excellent fatigue resistance and longer
life expectancy.

General Motors Values from



Moraine Products

Division of General Motors, Dayton, Ohio

A complete line of Moraine Service bearings for all cars and trucks. The new, complete Moraine bearing line gives you the bearings you need for all bearing replacement jobs—conveniently available from a single source. Remember—Moraine bearings are original equipment in General Motors cars and trucks. So—replace with Moraine in General Motors applications; sell and use Moraine bearings for other bearing replacement jobs. Moraine service bearings are available everywhere through the United Motors System or your General Motors car or truck dealer.



MORaine GAS FILTERS!

Glass-bowl and pancake all-metal types assure dirt free, lint free fuel under all operating conditions.

Portsmouth Transit Bus Servicing

Continued from Page 71

giving us one stop service of cleaning, fueling and visual motor inspection.)

6. The bus washer with the usual side revolving brushes is in the garage. A homemade roof cleaning device consists of a curved water pipe with 1/64-in. holes

spaced 1 in. apart from which we have hung ordinary cleaning mops. It does an excellent job of cleaning roofs.

7. At the other end of our bus garage we have the usual inspection pit.

Our buses are divided into two

groups—those that require servicing and those that do not.

We have established a local rule that buses which operate less than 60 miles that day do not require servicing, and these buses do not go through the service line. Nineteen of our 59 buses are so classed.

Another rule is that we wash buses five nights a week—even numbered buses one night, odd numbered buses the next. Now you see the reason for our parking buses by numbers in those previously mentioned 1-2-3-4-5 lanes.

First we handle the buses that require washing. The hostler (we use two) drives the bus to the one-stop service station where it is stopped so that the front door is exactly opposite the cyclone cleaner. The hostler opens the door, reaches out and gets a rubber shield, and hooks it to the front cross bar. Use of this shield keeps trash out from behind the folding bus doors when the cyclone cleaner is pulling trash from within the bus. The hostler then leaves the bus by the exit door. At the same time the bus cleaner (cyclone cleaner operator) enters the bus with his air hose. He cleans the bus interior, seeing that trash is moved from dead spots, etc.

Servicing Routine

In the meantime the hostler starts his servicing, first by placing a gas nozzle in the gas filler spout. We have determined that the average bus will require 50 to 60 gal. While the tank is being filled, the hostler fills the radiator, checks oil level, filling if necessary, and then checks for oil and water leaks and such troubles as may lead to road failure. Being qualified second class mechanics the hostlers are capable of performing such service.

Presently the cleaner completes his work before the hostler is through. However, we will soon install new gas pumps which will pump gas faster so that both men will complete their respective jobs simultaneously.

The hostler then moves the bus forward to the next operation. If the bus is due for washing it goes

(TURN TO PAGE 130, PLEASE)

forget about demurrage!

LEASE

the oxygen and acetylene cylinders you need



Your LINDE Distributor has a moneysaving plan under which you can lease LINDE Oxygen and PREST-O-LITE Acetylene cylinders. Under this plan, you get the cylinders you want, when you want them, where you want them, and as many as you need—and never get a bill for demurrage. **TWO SIZES EACH OF OXYGEN AND ACETYLENE CYLINDERS ARE AVAILABLE.** Choose between oxygen cylinders of 80 or 150 cu. ft. capacity and acetylene cylinders of 60 or 133 cu. ft. capacity. Select the combination that best meets your needs.

Cylinders Are Reserved for You. When your leased cylinders are empty, simply exchange them for full ones. No waiting to have the empties refilled. All the gas you need is always available.

Your Initial Cost is the Only Cost under ordinary circumstances. LINDE AIR PRODUCTS COMPANY maintains your cylinders against normal wear and inspects them periodically at no cost to you.

SEE YOUR "LINDE" DISTRIBUTOR today and ask about a cylinder lease plan to fit your needs. Or write LINDE AIR PRODUCTS COMPANY, a Division of Union Carbide and Carbon Corporation, 30 East 42nd Street, New York 17, N. Y. In Canada: LINDE AIR PRODUCTS COMPANY, Division of Union Carbide Canada Limited, Toronto.

The terms "Linde" and "Prest-O-Lite" are registered trade-marks of Union Carbide and Carbon Corporation.

TDA[®] BRAKES

if it moves...we can stop it

new **"DM"** brake

...farm equipment
...special duty utility trailers
...lightweight highway trailers
...industrial machinery



"DM" DUPLEX MECHANICAL BRAKE

Best on many jobs, this rugged new DM Brake actually outperforms more specialized brakes. It has proved its worth with farm equipment, special duty utility trailers, light duty highway trailers, industrial machinery, and in a wide variety of special applications.

Greater torque output! The DM Brake is a self-energizing, balanced type . . . the two identical shoes do an equal amount of work in either forward or reverse direction.



Simpler Maintenance and Adjustment!

The DM Brake is wedge-actuated through an easily accessible operating lever, giving positive braking with immediate response. The DM Brake can be actuated by either an air or hydraulic cylinder, or mechanical means. Complete accessibility permits quick, easy adjustment. Simple design keeps maintenance and service at a minimum.

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For every industrial, agricultural or automotive application where braking is required!

TDA Plants at: Detroit, Michigan • Oshkosh, Wisconsin • Utica, New York
Ashtabula, Kenton and Newark, Ohio • New Castle, Pennsylvania

Timken-Detroit Brake Division
Rockwell Spring & Axle Company
Dept. CCJ-106, Ashtabula, Ohio

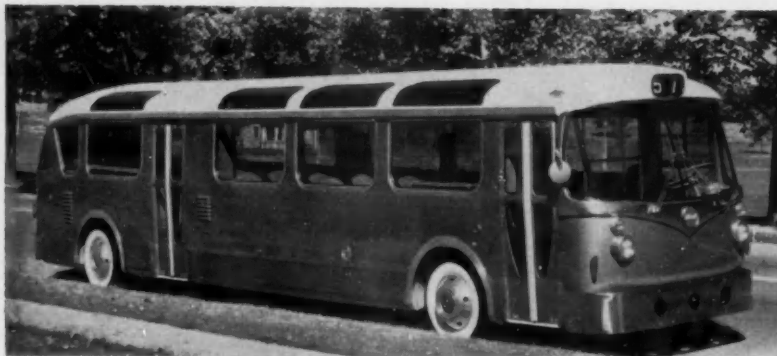
Please send me further information on your "DM" Series Brake.

Name POSITION

Company

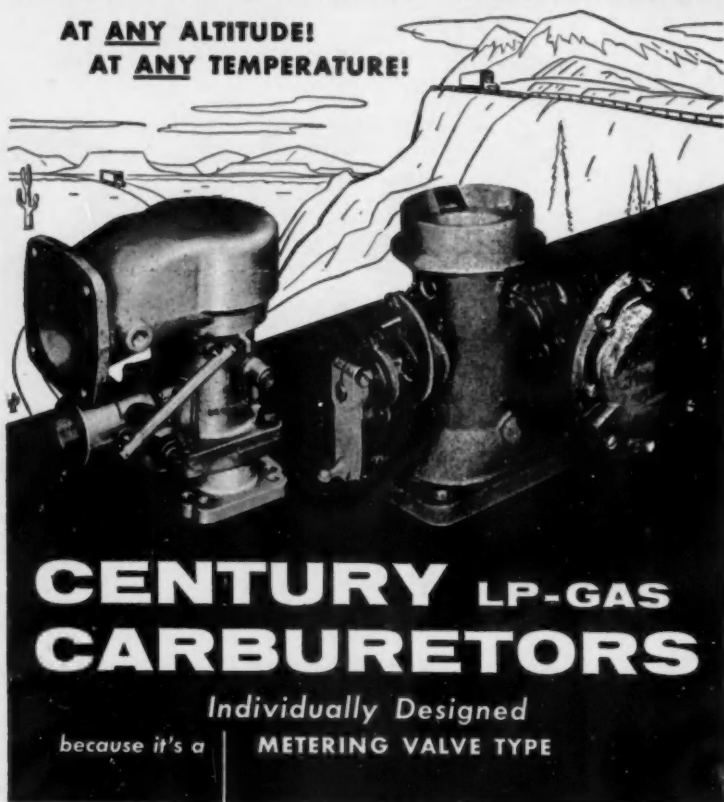
Address

City State



PERFORMANCE

AT ANY ALTITUDE!
AT ANY TEMPERATURE!



CENTURY LP-GAS CARBURETORS

Individually Designed
because it's a **METERING VALVE TYPE**



STARTS INSTANTLY upon installation.
GIVES INSTANT POWER—no choking or fluttering.
IDLES PERFECTLY.
BALANCES POWER of each cylinder.
NO MULTIPLE ADJUSTMENTS—tune up only.
PERFORMS AT ALL speeds to pre-set perfection.

CENTURY GAS EQUIPMENT CO.
11188 Long Beach Boulevard, Lynwood, California

Easy Starting! Perfect Idling! Economy!

Bus men at the ATA convention showed much interest in a "Bus of Tomorrow" displayed by Mack and billed as an "exploratory venture in the field of bus design." Styling is by noted designer Alexis De Sakhnoffsky. Interesting features include: (1) two antennas mounted on rear of roof for passenger radio and radio-phone between driver and central garage; (2) greater window space with curved glass in roof, Curved rear windows, wraparound windshield with "plunging waistline" for extra view of ground for driver; (3) rear seats in lounge arrangement; (4) built-in air conditioning.

Portsmouth Transit

Continued from Page 128

to the bus washer where front and rear ends are washed by the one cleaner we have stationed there.

Pit Inspection

We then handle those buses that require pit inspection. Brake adjustments are made while bus is on pit with hostlers operating the brakes for the inspector who also looks for other troubles that may lead to road failures.

If any troubles are found by the hostler or the inspector a Trouble Report is prepared by the inspector and the hostler moves out with the bus and parks it on the dead line for later repairs.

If the bus is found to be "okay" it is parked outside in the parking lot on a 15 deg angle to permit removal at will. Such parking allows the assignment of the same bus to the same operator each day. Operators having their own buses, so to speak, have a much greater sense of pride in our equipment and consequently take better care of the bus.

END

Please Resume Reading Page 72

Drivers Must Prove They Can Drive

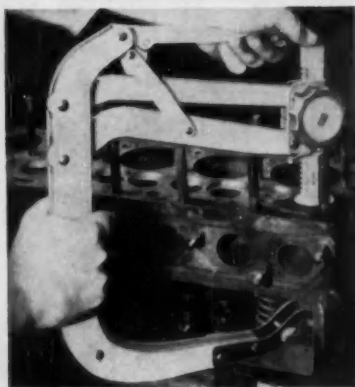
Continued from Page 77

another of the three tests given to driver applicants and regulars with poor driving records—the test covering personal attitudes—has played an intangible but equally important part in improving the company's record.

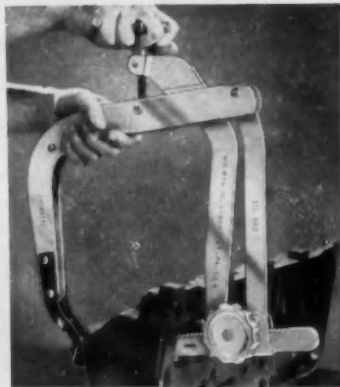
"Admittedly," he points out, "a

good interviewer should be able to spot many of these poor attitudes when he talks to a new man. But the interviewer isn't infallible. Even the best of us have pet prejudices that may, on occasion, interfere with an objective evaluation."

K-D Valve TOOLS for every Job



380 Compressor. Great favorite for valve-in-head or L-head engines—old, new, passenger, truck and bus.



382 Compressor. For working in close quarters. Best all around tool for 1956 Chrysler-built V-8's.

383 Compressor. Fastest on most of today's valve-in-heads.



325 Compressor. Heavy duty for BIG truck, bus, tractors.



377 Set. For all basic models Briggs & Stratton engines. Also Clintons.



375 Compressor, 376 Insertor.



930 Compressor. for Ford-built V-8 engines 1949-53.

935 Compressor. Used with No. 930 to remove valve springs 1949-50 Ford-built.



FREE LITERATURE
• 32 page Catalog. 150 Tools described, illustrated.
• Bulletin 26-C. Complete instructions on servicing valves all 1956 Chrysler-built

K-D TOOLS • K-D Manufacturing Co., Lancaster, Pa.

K-D Tools are designed by working mechanics and shop men to make everyday, hard jobs easier. At your Jobber's.

The Siebrecht Attitude test, which Willett obtained from the Center for Safety Education of New York University, consists of 40 multiple-choice questions. They're designed to reveal the driver who bears a grudge against pedestrians, other drivers, traffic laws, and/or accepts accidents too philosophically. The man taking the test is asked whether he agrees or disagrees with such statements as:

"Pedestrians should yield the right of way to motorists."

"Improved construction of automobiles makes driving skill less necessary today than five years ago."

"A driver is really the best judge of the speed he should be permitted to drive."

Intelligence Test

The Scott intelligence test is the third one in the series. It is divided into four parts, which delve into the driver's knowledge of mathematics and verbal relationships.

Primarily, this exam is designed to find out whether the new driver is smart enough to handle the clerical work that is involved in his job—collecting money, picking up loads, etc. But questions must be answered within set time limits. Thus the driver's ability to think quickly—an important factor in sidestepping accidents—is also revealed.

Program is Liked

How does Willett feel about the tests? Says Haase: "There are innumerable reasons why a given driver has a given kind of accident—some of them obvious, some of them not so obvious. The company that employs that driver faces a gigantic guessing game when it tries to detect the accident possibilities beforehand. We're convinced that these tests can be effective in reducing the size of the job appreciably. Not only do they reduce the load on the job interviewer, but they also cover certain important areas that aren't covered by job interview."

END

Please Resume Reading Page 78



NEW PLASTIC RIBS GIVE GREAT MECHANICAL STRENGTH



New Plastic Discovery

**gives batteries
20% more cranking power**

Don't be like Henderson and get stuck with an inferior battery, hub-cap deep in winter drifts. Just be sure, when you buy batteries for your trucks, that they are equipped with U. S. Sentinel Separators.

U. S. Sentinel Battery Separators give 20% greater cranking speed even in cold weather. Made of a new plastic discovery, these separators are extremely resistant to rotting and oxidation. They are your best protection against battery "shorts". U. S. Sentinel Separators are unaffected by overcharging, heat, battery acids or plate pressures.

When you buy batteries be sure to look for the Sentinel tag right on the post. United States Rubber, Rockefeller Center, N. Y. 20, N. Y.



Electrical Wire & Cable Department

United States Rubber

Leece- Neville

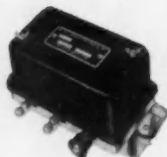
Electrical Equipment NOW STANDARD

on Cummins Diesel Engines

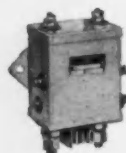


**L-N HEAVY-DUTY
D.C. GENERATORS**
Swivel mounting (as
shown) or strap mounting

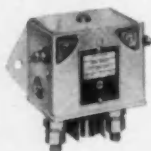
L-N REGULATORS
Rugged construction for heavy
duty and reliable control



**L-N
CRANKING
MOTORS**
High torque, fast cranking
for quick starts



L-N MAGNETIC SWITCHES
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**H and NH SERIES
J SERIES**

**REPLACEMENT UNITS and SERVICE
NOW AVAILABLE THROUGHOUT
THE UNITED STATES and CANADA**

FLEET OPERATORS: Please write
for new Leece-Neville Service Directory
listing names and addresses of over 1200
service and sales locations. There are
L-N Central Distributors with warehouse
stocks in more than sixty key cities.

THE LEECE-NEVILLE COMPANY • CLEVELAND 3, OHIO

**YOU CAN
RELY ON**

**Leece-
Neville**

Automotive Electric Equipment Since 1909

TRUCK • BUS • DIESEL • INDUSTRIAL • PASSENGER • RAILROAD • MARINE • OFF-HIGHWAY



ALTERNATOR SYSTEMS



D.C. GENERATORS



REGULATORS



CRANKING MOTORS

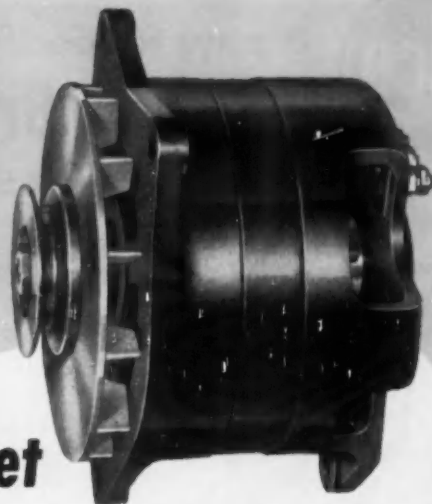


SWITCHES



SMALL MOTORS

Leece- Neville



**How to keep your fleet
on the job and out of the shop**

LEECE-NEVILLE STANDARD ALTERNATORS

- 1**... Produce all the electric power your units need, eliminate downtime.
- 2**... Have unequalled reliability, long life, low maintenance.
- 3**... Cost less than "extra" output d.c. generators.

A RIGHT SIZE L-N ALTERNATOR FOR EVERY NEED

For 6 volt systems capacities range from 55 amps to 95 amps. Alternators from 30 to 180 amps are available for 12 volt systems. Also for 24 and 32 volt vehicles. L-N Alternators weigh much less than comparable d.c. generators.

SINCE 1946 Leece-Neville Alternators have been cutting maintenance and operating costs on thousands of trucks, passenger cars and off-highway units. Why not let your nearby friendly L-N Distributor make a trial installation on one of your vehicles? Call him in today . . . or write The Leece-Neville Company, Cleveland 3, Ohio.

**YOU CAN
RELY ON**

**Leece-
Neville**

Automotive Electric Equipment Since 1909

TRUCK • BUS • DIESEL • INDUSTRIAL • PASSENGER • RAILROAD • MARINE • OFF-HIGHWAY



ALTERNATOR SYSTEMS



D.C. GENERATORS



CRANKING MOTORS



REGULATORS



SWITCHES

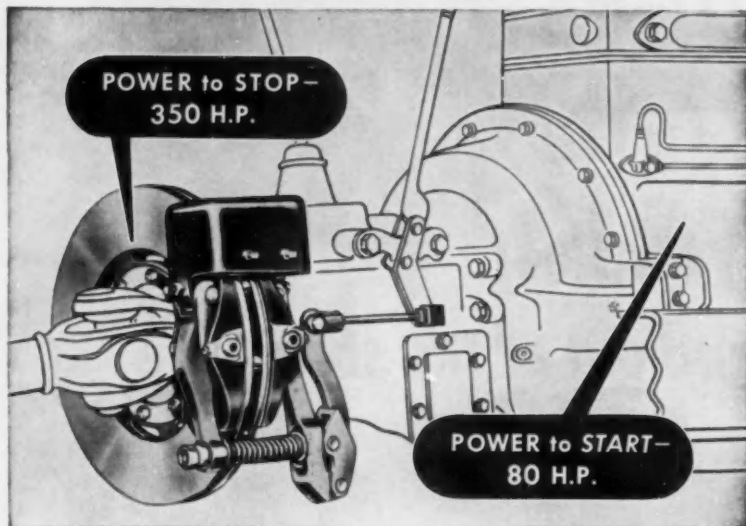


SMALL MOTORS



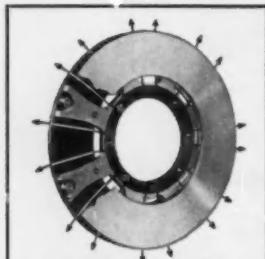
It pays to specify Tru-Stop Brakes

FOR LONG LIFE—EASY SERVICE



Have the surplus braking power emergency service requires

- In terms of horsepower, brakes actually do more work than the engine. For example:



Air-cooled for Long Life

- The terrific heat generated in braking shortens lining life. TRU-STOP design quickly dissipates this heat. Most of the disc is exposed to the air even during braking. And a jet of cooling air circulates between the disc blades and carries off heat.

Where it takes 80 H.P. to accelerate to 20 miles per hour, 350 H.P. is required to make a safe stop at that speed within required limits.

TRU-STOP Emergency Brakes have the surplus braking power required for emergency service. That is why they are more adequate for use as parking brakes.

TRU-STOP Brakes lower service costs, too. Relining or adjustment is a simple job for any mechanic with ordinary tools. It is not necessary to drop the drive shaft.

Specify TRU-STOPS for factory installation on the next vehicle you buy. Send for your copy of this booklet—the complete story of TRU-STOP Brakes.

ACCO



**Automotive and Aircraft Division
AMERICAN CHAIN & CABLE**

601 Stephenson Bldg., Detroit 2
2216 South Garfield Ave., Los Angeles 22 • Bridgeport 2, Conn.



Fuel Injection

Continued from Page 86

alignment of the two orifices in the rotating sleeve to the respective ports in the body; i.e., one of the sleeve orifices to the inlet port and the other sleeve orifice to the outlet port, and thus to the injection nozzle located in the appropriate cylinder intake area.

Cycle of Operation

This cycle is repeated for the injection of the timed fuel charge to the next cylinder in correct sequence, except that the two orifices in the rotating sleeve are aligned to the opposite ports in the body; consequently, the shuttle piston's direction of travel is reversed. In traveling an exactly equal distance back to the other stop, it displaces an equal quantity of fuel through the outlet port to the injector nozzle. Once again the fuel ceases flowing and the continued rotation of the sleeve completes the cut-off to the cylinder. The rotation continues but the procedure reverts back to the first cycle described and the fuel charge is distributed to the third cylinder in order, etc.

The proper fuel metering is regulated by the manifold pressure in the component called "the mixture control." The regulation is accomplished mechanically by positioning the variable position control stop in the metering unit. The mixture control is directly attached to the metering unit.

Manifold Pressure

The manifold pressure in the intake manifold is fed to the spring loaded side of an air piston in the mixture control. When the manifold pressure is at atmospheric pressure, such as is the case during full throttle operation, the air piston is extended by the piston spring to a predetermined maximum point. By means of levers this positions the control stop within the rotating sleeve of the metering unit to a point allowing maximum displacement of the shuttle piston between the two stops—consequently, the maximum quantity of fuel per injection.

During part throttle operation, the manifold pressure is decreased and the differential pressure across the air piston displaces it to a new position.

END

Please Resume Reading Page 88

Vanity... and the Van

Pride of ownership... plus profits in the till.

That, briefly, is the story of the stainless steel trailer bodies manufactured by The Budd Company... the highest capacity, longest-lived trailer on the highway.

Great Coastal Express, with terminals in Newark, N. J. and Richmond, Va., employs stainless steel trailer bodies exclusively.

Mr. Paul S. Whitescarver, owner of Great Coastal, started operations with stainless steel trailers in 1946... and today, ten years later, claims that the high strength of stainless and its ability to resist corrosion enable him to *keep* his profitable... and good looking... fleet on the road.

Stainless steel trailer bodies of Budd manufacture haul as much as 35% greater payload than the average trailer in use today. And remember, Budd-built stainless steel trailers have been in operation for more than twenty years, yet there is no known instance that a single one of them has ever worn out! The Budd Company, Philadelphia 15, Pa.

Budd



New Loading System Speeds Piggy-Back

Continued from Page 75

clamps are permanently located between the center sill beams of the car. A simple turn of a crank by one man working at ground level swings the clamps into position to tie-down the trailer in position.

Trailer Modifications

Truck trailers moved in this service are equipped with axle dollies and attachments to the landing gear. Dollies have flanged wheels which ride on the center sill of the car. These are part of the "Guided

Loading" system to quickly handle the trailer during loading and unloading. Trailers used regularly in the service are equipped with permanent dollies; otherwise, for dispatching flexibility, demountable dollies can be attached in less than five minutes. Consequently, any trailer may be quickly equipped for use on the Piggy-Back, Inc. car.

Trailer Springs Used

The attachment on the trailer's landing gear has a latch which clamps under the rim of the center sill. Dollies on the rear axle include a slot which engages the permanent clamp on the rail car when the trailer is locked in position. Rubber snubbers on a shaft with the clamp serve to cushion the rear axle clamps against any longitudinal shocks. They permit the trailer up to 10-in. horizontal travel, either forward or backward, giving ultimate protection to the vehicle and its lading. Trailer dolly wheels support the weight of the trailer on the center sill, with trailer wheels and tires straddling the sides of the I-beams. The trailer is supported on its own springs providing greater resiliency and acting as a cushioning device for the cargo.

Special Trailer Jockey

Trailers are loaded end-wise on the rail cars by a tractor which is also equipped with flanged wheels on the forward and rear axle. The tractors are manufactured by Mack Trucks, Inc. The tractor's rear flanged wheels are of smaller diameter than the road wheels, but operate concentrically with them and with the brake drums. The front flanged wheels are small dolly wheels which ride along the rails of the rail car, providing stability, steering guidance and security. The Piggy-Back Mack is also equipped with a Polard MRT-2 hydraulically-operated fifth wheel which facilitates pickup and detachment of trailers.

Key to the fast loading is a "frog" type centering device which engages the flanged wheels on the tractor and trailer and automatically guides them into proper

(TURN TO PAGE 142, PLEASE)

New!

MARQUETTE'S EXCLUSIVE PUSH-BUTTON

CHARGER-TESTER DESIGN

Reduces Battery Service

Costs **3 WAYS**



The Marquette Series 300 6/12V battery charger-testers introduce new speed, accuracy and simplicity to help cut your battery service costs 3 ways. Here's how:

First, Marquette's exclusive *20-second battery test*; this speed enables your shop to keep a constant check of all rolling stock on busy work schedules . . . anticipating possible battery problems before occurrence.

Second, Marquette's exclusive *minutes-of-charge* shows the exact time required to restore battery's normal condition. This precision eliminates guess work, error and possible damage during charging cycles.

Third, Marquette's exclusive *automated Push-Button Chargers* bring the ultimate in simplicity to battery service . . . Now anyone who can push a button can test and charge batteries quickly, safely and easily.

Marquette also protects you with nationally known component parts, a full year performance guarantee and 76 service depots throughout the country.

YOUR NEAREST MARQUETTE JOBBER is the man to see. Ask him today about Marquette's Push-Button automated battery service.

MARQUETTE

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*Crown
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ever-higher

Pinnacles of Excellence

In an unceasing quest for ever-higher pinnacles of excellence, Filko craftsmen originate a continuing cascade of notable quality advancements to ever enhance the lustrous glow of every "Crown Jewel of Ignition." Out of this Crown Jewel engineering tradition, come true improvements in ignition. These are made available for the broadest sweep of applications thru Filko's exclusive completeness of line. So far-reaching in scope is this cascade of ignition advancements, that it encompasses a near-unlimited variety of engines... from fractional horsepower types employed on water, farm and in the home, to the highest powered engines that toil on highway and in industry. It is this exclusive completeness which creates unbounded opportunities for those who would actually improve rather than just simply renew ignition performance.

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in Every facet of the Crown*



HOWDY EASTERNERS... WELCOME TO WESTERN-STYLE DRIVING!

Saw a little notice in the paper the other day.
Said something about a new turnpike you folks just built.
Runs all the way from Maine clear across Ohio.

Paper said it was 714 miles long, with no traffic lights or intersections.
Nothin' to slow you up.

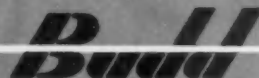
Man, that sounds *exactly* like one of *our* truck or bus runs...
Lots of distance and plenty of speed.

But shucks, there's nothing to a run like that if you've got the right equipment.
Such as Budd wheels... tubeless or conventional.
We've been using them on heavy hauls out here for years and years.
Can't beat 'em.
Better buy 'em!

Budd's life-of-the-vehicle wheels are used for most inter-city and transcontinental bus operations... in the lumber industry where loads sometimes reach 100 tons... on the long high-speed hauls over deserts and winding mountain roads.

The Budd tubeless wheel has all the tested and proved features that have always characterized Budd wheels. And, in addition, it features an exclusive patented extruded rivet which provides a positive protection from leakage.

THE BUDD COMPANY, DETROIT 15

The Budd logo, featuring the word "Budd" in a stylized, italicized, sans-serif font. The letters are bold and slanted to the right. A horizontal line is positioned above the letters, starting from the left and ending under the 'd'.

AKRON—Motor Rim Manufacturers Co.
ALBANY—Wheels, Incorporated
ALBUQUERQUE—Wheels & Brakes, Inc.
ATLANTA—John A. Harris & Son, Inc.
BIRMINGHAM—Wheel, Rim & Parts Co.
BOSTON—New England Wheel & Rim Co.
BUFFALO—Frey, the Wheelman, Inc.
CHARLOTTE—Carolina Rim & Wheel Co.
CHICAGO—Stone Wheel, Inc.
CINCINNATI—Rim & Wheel Service, Inc.
CLEVELAND—Motor Rim Manufacturers Co.
COLUMBUS—Hayes Wheel & Spring Service
DALLAS—Southwest Wheel, Inc.
DAVENPORT—Stone Wheel & Rim Co.
DAYTON—Rim & Wheel Service, Inc.
DENVER—Quinn & McGill Motor Supply Co.
DES MOINES—Des Moines Wheel & Rim Co.
DETROIT—H. & H. Wheel Service, Inc.
EVANSVILLE—Auto Wheel & Rim Service Co., Inc.
FARGO—Wheel Service Company
FORT WAYNE—Wheel & Rim Sales Co.
GRAND RAPIDS—Rim & Wheel Service Co.
HARRISBURG—Standard Wheel & Rim Co.
HARTFORD—Connecticut Wheel & Rim Co.
HOUSTON—Southwest Wheel, Inc.
INDIANAPOLIS—Indiana Wheel & Rim Co.
JACKSONVILLE—Southeast Wheel & Rim Co.
KANSAS CITY—Borbein Young & Co.
KNOXVILLE—John A. Harris & Sons, Inc.
LANCASTER—Standard Wheel & Rim Co.
LOS ANGELES—Wheel Industries, Inc.

LOUISVILLE—Auto Wheel & Rim Service
LUBBOCK—Southwest Wheel, Inc.
MEMPHIS—Beller Wheel, Brake & Supply Co.
MILWAUKEE—Airing Equipment Co., Inc.
MOLINE—Mutual Wheel Co.
NASHVILLE—Beller Wheel, Brake & Supply Co.
NEWARK—Automotive Safety Inc.
NEW HAVEN—Connecticut Wheel & Rim Co.
NEW ORLEANS—Southern Wheel & Rim Co.
NEW YORK—Wheels, Incorporated
OKLAHOMA CITY—Southwest Wheel, Inc.
OMAHA—Morgan Wheel & Equipment Co., Inc.
PEORIA—Peoria Wheel & Rim Co.
PHILADELPHIA—Kay Wheel Sales Co.
PHILADELPHIA—Thomas Wheel & Rim Co., Inc.
PITTSBURGH—Wheel & Rim Sales Co.
PORTLAND—Six Robbles', Inc.
PROVIDENCE—New England Wheel & Rim Company
RALEIGH—Carolina Rim & Wheel Co.
RICHMOND—Dixie Wheel Co., Inc.
ROCHESTER—Frey, the Wheelman, Inc.
SALT LAKE CITY—Henderson Rim & Wheel Service
SAN ANTONIO—Southwest Wheel, Inc.
SAN FRANCISCO—Wheel Industries, Inc.
SEATTLE—Six Robbles', Inc.
SOUTH BEND—Wire & Disc Wheel Sales & Service
SPOKANE—Bearing & Rim Supply Co.
SPRINGFIELD, ILL.—Illinois Wheel & Brake Co.
SPRINGFIELD, MO.—Borbein Young & Co.
ST. LOUIS—Borbein Young & Co.
ST. PAUL—Wheel Service Co.

SYRACUSE—Wheels, Incorporated
TACOMA—Six Robbles', Inc.
TOLEDO—Wheel & Rim Sales Co.
WICHITA—Borbein Young & Co.
WINSTON-SALEM—United Automotive Service

EXPORT

CLEVELAND—C. O. Brandes, Inc.

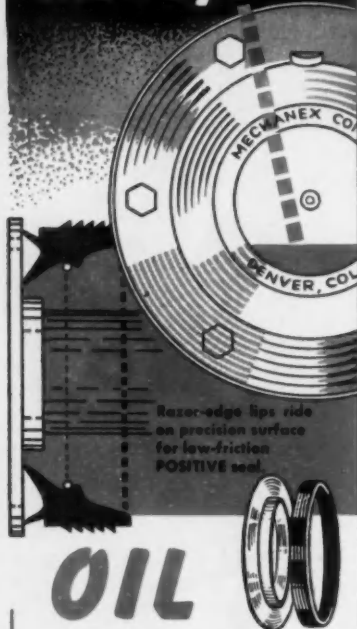
CANADA

CALGARY—Mutual Supplies, Ltd.
EDMONTON—Alberta Wheel Distributors, Ltd.
MONTREAL—Auto Wheels & Supplies, Ltd.
TORONTO—Wheel & Rim Co. of Canada, Ltd.
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money?**



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MECHANEX — the original Wheel Oil Seal — cuts maintenance to the bone, puts good green dollars in your pocket. Why **GUESS** on bearing lubrication, when you can look through the window and **SEE!** Visible oil level — superior, precision-built hubcap — exclusive **INTERLOCKING** engagement ring and backing plate — positive protection for thousands of maintenance-free miles. Lowest replacement cost. That's why **dollar-wise** truck lines always specify **MECHANEX** — there's mighty big money in **OIL!**

Available on new equipment at all Trailer Manufacturers

Distributed by Trailer Branches and leading Parts Suppliers



... Speeds Piggy-Back

Continued from Page 138

alignment on the rail car. Spring activated platforms under the "frog" shift to left or right when contacted by the flanged wheel, so that the wheels are positioned automatically to ride the car's center sill.

Several Benefits

The new equipment could mean still further growth for the New Haven's "Trailer" service, which reached peaks of more than 50,000 trailers a year. Trailers ride more than six inches lower on the new cars, and that opens up the service to 12½ ft. high trailers compared with the present 12-ft. height limit. Since the dolly equipment may be easily attached and removed, it means that any trailer can be fitted for "Trailer" shipment instead of only those with permanently attached brackets for tie-down chains. The



Loading jockey features an hydraulic-lifting fifth wheel to speed handling

dollies do not interfere with normal road operation of the trailers, so that trailers used regularly on "Trailer" shipment may carry them as permanent attachments. Piggy-Back, Inc. has developed a special front landing gear with the flange clamps built in, which costs little more than the standard landing gear and could replace it on trailers shipped regularly in "Trailer" service.

END

Please Resume Reading Page 76

Look to LEE to Solve Your TRUCK LIFTING PROBLEMS

LEE TRUCK LIFT

Operates anywhere air pressure is available • eliminates need for special pits • makes an ideal auxiliary hoist • economical to operate and maintain • lifts either end of truck up to 50" • 5500 lb. capacity.

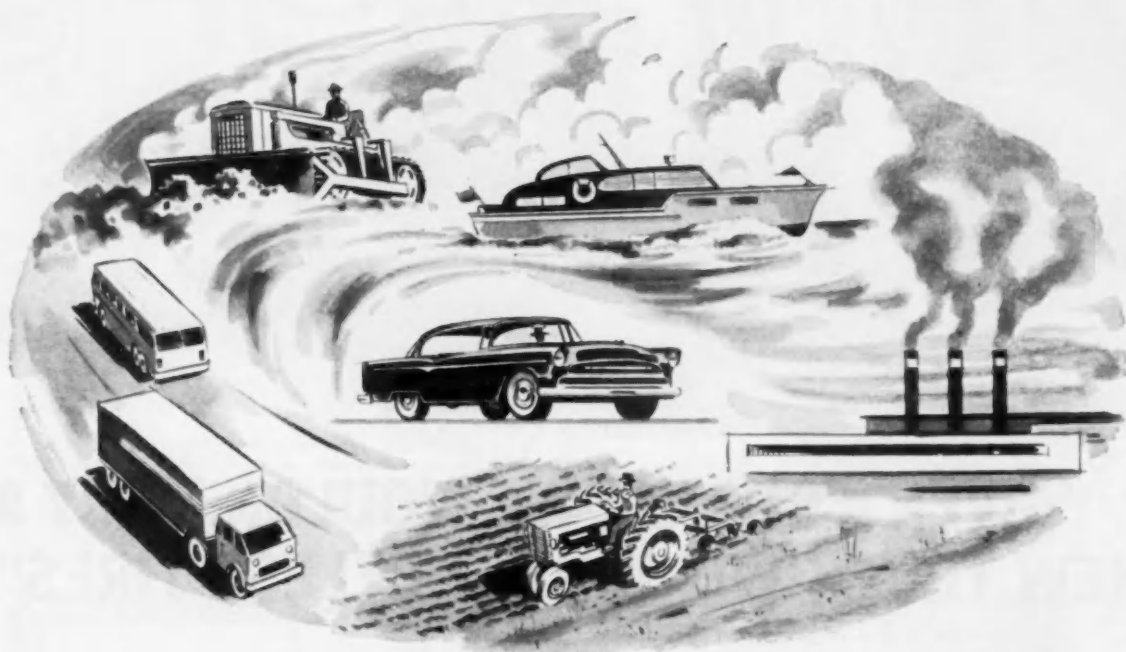
See your jobber or write.



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in more fields with
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than any other carburetor manufacturer

It just makes good sense—the more experience a manufacturer has in meeting a variety of problems, the better equipped he is to come up with a solution to your individual problems.

That's why when it comes to carburetors for passenger cars, trucks, buses, tractors, boats, off-the-road vehicles—in fact, wherever carburetors are used—the long, diversified experience of Zenith

is your best assurance of outstanding performance at economical cost.

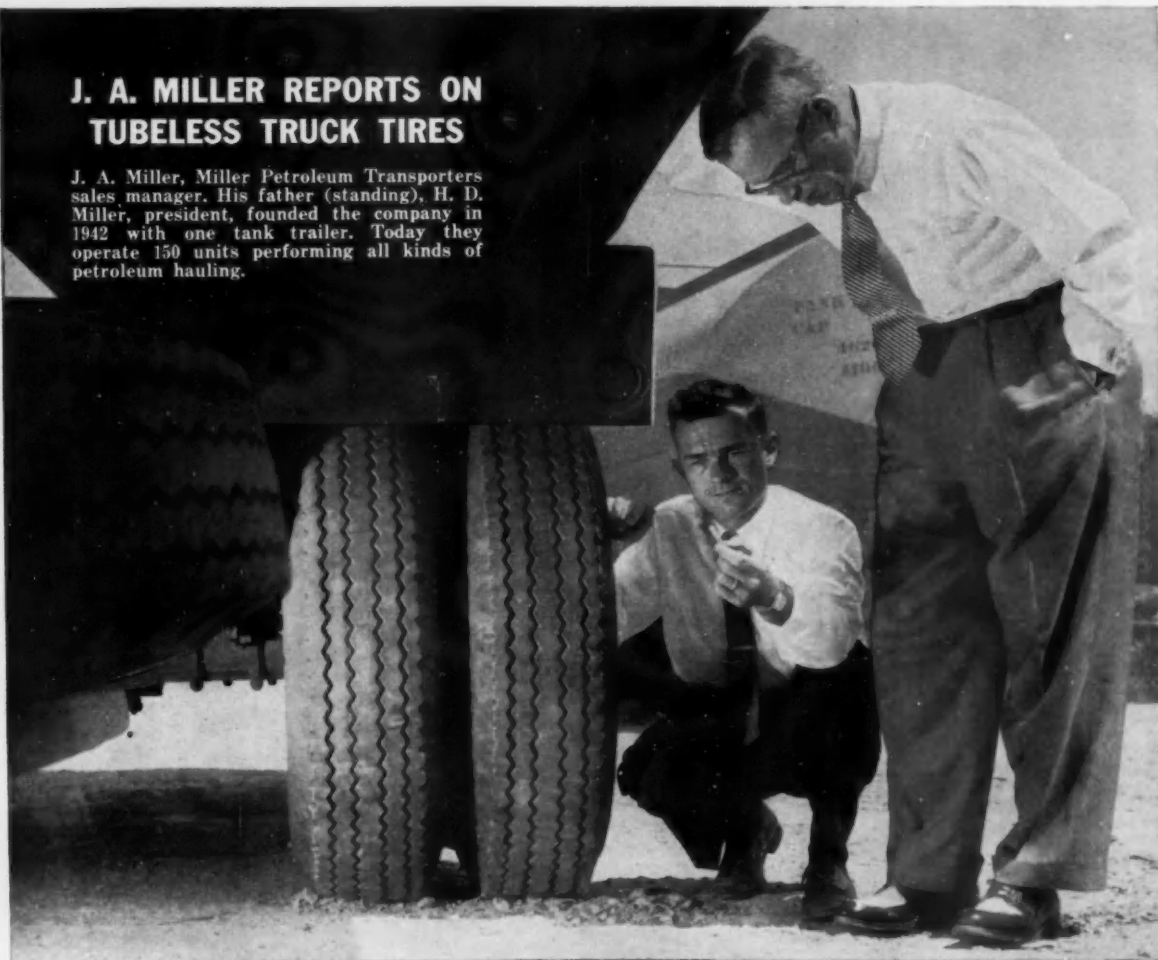
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CARBURETOR
DIVISION

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J. A. MILLER REPORTS ON TUBELESS TRUCK TIRES

J. A. Miller, Miller Petroleum Transporters sales manager. His father (standing), H. D. Miller, president, founded the company in 1942 with one tank trailer. Today they operate 150 units performing all kinds of petroleum hauling.



Q. *Mr. Miller, given a choice between a new truck equipped with tires with tubes and the same truck equipped with tubeless tires, which would you buy?*

A. **"GIVEN A CHOICE, WE WOULDN'T BUY A NEW TRUCK WITHOUT TUBELESS TIRES"**

says J. A. Miller of Miller Petroleum Transporters, Ltd.

Miller Petroleum with home offices in Jackson, Mississippi, was one of the first fleets in the South to equip with tubeless truck tires. Their experiences with them may serve as a basis on which other truckers may take steps to derive similar benefits. This is particularly true since Miller Petroleum Transporters' operations include nearly every type of hauling . . . over the road, oilfield hauling, and intercity-terminal deliveries. The following interview with Mr. "Jaime" Miller, formerly in charge of Operations and Equipment, should answer many questions of interest to the fleet operator regarding the advantages of tubeless tires.

Q. *What were your conclusions about the wearing qualities of Firestone tubeless tires compared to tires with tubes?*

A. Without exception, Firestone tubeless truck tires gave longer mileage than the other tires. They were better on the road and better in the oilfields. Our off-the-road operations gave them their best test because we had experienced many difficulties with tires with tubes. Our oilfield tractor-trailer units had been having four and five punctures a day before then. We even had them carrying two spares. You can see what troubles a flat tire in the oilfields can cause. A rig might sit for hours with a payload until repairs could be made and the rig rolled again.

Punctures were a real headache and were really costing us money.

Q. Did Firestone tubeless truck tires solve your problem?

A. Yes, they did. Punctures didn't stop the units from traveling. The drivers were able to make their runs on schedule and then have the punctures repaired after arrival at the terminal.

Q. Do you have any tips for truck operators who are planning on buying tubeless tires?

A. Yes, there will always be problems with any tire. For instance, any truck owner planning to use tubeless tires should standardize his rims. And, changing tubeless tires is very simple and easy if you use the right tools. Use of a hammer or other improper tools in changing is the easiest way to damage a rim or the tire bead. After all, you only need a pair of vice grip pliers and two special tubeless tire irons.

Q. Well then, would you recommend Firestone tubeless tires for truck operators?

A. There's no question about it . . . we certainly do.



"Standardization" and "Progress" are key words in the Miller business philosophy. The company was the first in the South to install the key stop unloading system. Above, L. E. Jones, Miller Maintenance Mgr. (standing), checks out tire pressures with a driver. His comment on Firestone tubeless truck tires: "We've never yet had one ruined from having to run flat due to a puncture."



Maximum payloads are a major objective of Miller Petroleum Transporters. Mr. Miller says, "We can get approximately 50 gallons more payload with the weight savings we obtain by using tires without tubes. That's 300 pounds per load or about \$200 per year per unit." He adds, "Another advantage is that Firestone tubeless tires can be changed faster."



Trucking profits get a break when worn tires have sound bodies that can take several recaps. Eliminating flats from punctures helps make this possible. Miller's Terminal Manager at their Natchez office reports: "Reduction of flats 50% in oilfields with Firestone tubeless tires for off-the-road duty."

SUPER ALL TRACTION



ROCK GRIP EXCAVATOR®



ALL TRACTION®



Firestone FIRST CHOICE WITH TRUCK OPERATORS EVERYWHERE

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Enjoy the Voice of Firestone on radio or television every Monday evening over ABC

QUALITY TRANSPORT LINE

New Shop Spawns Better Methods

Continued from Page 79

cial nozzle which has a longitudinal slot the same length as the air cleaner mesh.

The nozzle is hooked up to a high-pressure compressed air line, and when placed inside the air cleaner makes the cleaner revolve and dislodges accumulated dirt.

Engine Stand

Now using Cummins JT-6-B Cummins diesel engines exclusively, the shop staff was able to modify existing engine stands to handle the new units. A steel plate was mounted on the existing stands.

Maintenance Schedule

Progress of the fleet's PM program can be seen at a glance with the chart which is mounted in the shop foreman's office. It shows the tractor number, mileage at which the next PM service is due, and dates on which previous PM servicing has been done.

The fleet's servicing procedures have been revised as part of the general changeover. For example, the former periodic checking and draining of oil has been replaced with a scientific oil analysis system, which was put into effect as soon as the new equipment went into service. Oil was checked at every stop at first, and drained and replaced at 3000 miles. Test charts filed for each unit soon indicated that most drainage would have to occur at 6000-mile intervals. Actually the oil is drained only when the Shell ADC Oilprint analysis (May '55, page 82) procedure shows there are enough contaminants in the oil to justify removing it, but before the oil is dirty enough to be abrasive.

Proof that the system's off to a good start is that when engines were torn down after 87,000 miles to check for wear, there was no appreciable wear on connecting rod bearings, or main bearings, no acid etching, no measurable wear on piston rings, no stuck rings, and the valves were in good condition.

Radiator Checks

Chemical analysis is also used to check the condition of radiator coolant. Periodic checks of the chemical content of the coolant are made in the shop. Any condition which might be caused by water with varying mineral content being added along the route is thus quickly detected and corrected. The chain reaction that might start with a blocked water passage and end up with hot spots, low power, clogged radiator or burned valves is almost totally eliminated when a strong effort is made to keep only neutral water in the radiators.

END

Please Resume Reading Page 80

FLEET OPERATORS . . .



DON'T take 2nd best in Retreading!

Have Your Truck Tires T.R.I. MASTER-Retreaded according to the National Standards for treading automobile and truck tires.

The Tire Retreading Institute seal molded into each T.R.I. Master-Retreaded tire is your assurance of the finest quality retreading obtainable.

Look for the sign of safety, durability and economy or write to T.R.I. for your nearest T.R.I. MASTER-Retreader.





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NEW TRANSISTORIZED POWER VOICE speaker



*The secret is in
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"GOLDEN HEART"
transistor*

Hear your mobile radio

HUNDREDS OF FEET AWAY

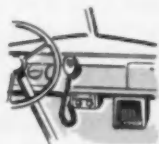
Now your vehicles, in fact any mobile radio equipped vehicle, can get far greater volume than ever before, with the new Motorola transistorized Power Voice Speaker.

This new compact, inexpensive speaker-amplifier combination delivers 10 TIMES MORE POWER than the conventional passive speaker. No more straining to hear messages. Just turn it up—it's got all the volume you'll ever need, all in this one small package. No longer is your driver shackled inside his vehicle...he can move about freely, hundreds of feet away, and still hear his dispatcher.

Secret of Motorola's newest development is the built-in transistorized amplifier, utilizing two long-life, Motorola power transistors. With the average 12 volt mobile radio system, the new speaker develops 15 watts audio output. Even on a 6 volt system, you get 5 watts output—much more than the conventional one watt speaker level.

This power packed speaker is available for your mobile 2-way radio NOW. It can be quickly and easily added to most 6 or 12 volt installations. With the new Power Voice Speakers doing a bigger, better job for you, you'll also find low battery drain, bandpass response that accents voice frequencies, and versatile Quick-detach mounting...in a compact, all-metal housing.

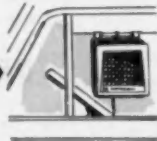
You must hear the new Power Voice Speaker to appreciate what this added power can mean to you. Write, phone or wire today...or mail the coupon below.



◀ New POWER VOICE speaker
mounts firmly under dash
in same familiar position

BUT...

detaches in a second to be
hung from vehicle window
and may be heard clearly
hundreds of feet away.



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NEWEST in TRANSISTORIZED EQUIPMENT

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2-WAY RADIO

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or a demonstration**

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☐ I want to hear a demonstration of the Power Voice Speaker.

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COMPANY _____
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HEART OF ALL-ELECTRIC TRUCK REFRIGERATION powered by G.E. is an engine-driven alternator. Small-diameter cable carries a-c power to the truck body where it is rectified to DC and regulated to constant voltage regardless of engine speed. A single G-E d-c motor drives both refrigerator compressor and condenser fan. A smaller G-E motor powers evaporator fan which circulates cool air.

GENERAL  ELECTRIC

A RATING FOR EVERY SIZE TRUCK



1/2- and 3/4-ton systems provide 40-degree temperatures for retail milk delivery. Also ideal for local delivery of other perishables including flowers and beverages.



1- and 1 1/2-ton systems have refrigerating capacity for small- and medium-size trucks used for wholesale delivery of produce, meat, frozen foods, and ice cream.



3-ton systems are designed for large over-the-road trucks and semi-trailers for long-distance movement of produce, frozen foods, and other perishable commodities.



Easily installed to operate off truck engine, the rugged G-E alternator produces 90-volt power for en-route cooling.



More room for payload results from the compactness of encased system electrical components and refrigeration equipment.



Convenient plug-in to adequately fused a-c outlet provides power for uninterrupted cooling during stand-by hours.

New all-electric truck refrigeration powered by General Electric cools round-the-clock, cuts over-all costs

IN-TRANSIT AND STAND-BY COOLING COMBINED IN ONE COMPACT, DEPENDABLE SYSTEM

Today the convenient, dependable, low-cost way to refrigerate your trucks is with new **all-electric** refrigeration powered by General Electric. Truck-refrigeration manufacturers now offer complete equipment designed around G-E electrical systems. There are units for local retail and wholesale trucks and over-the-road semi-trailers, for either cooling or freezing temperatures.

24-HOUR OPERATION

All-electric truck refrigeration powered by G.E. is 24-hour refrigeration. In-transit power is provided by a special under-the-hood G-E generator with ca-

capacity for full cooling even when the truck engine is idling. During off hours, the system operates by plug-in to a conventional a-c electric outlet.

MANY COST-CUTTING BENEFITS

All-electric truck refrigeration offers many benefits over other cooling methods—including constant temperatures, longer runs, bigger pay loads, and elimination of truck-body rust. And many types of products can now be successfully refrigerated for the first time with this new system.

SEE YOUR SUPPLIER TODAY!

If you operate trucks which require or

could benefit from economical refrigeration, it will pay you to discuss new **all-electric** truck refrigeration with your equipment supplier before you commit another dollar of equipment investment.

FOR MORE INFORMATION

General Electric Company,
Section 1 704-60, Schenectady, N.Y.

Please send me your new Bulletin
GEA-6084A describing the G-E electrical
system for all-electric truck refrigeration.

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Progress Is Our Most Important Product

GENERAL  ELECTRIC

Help Wanted: More and Better Mechanics

Continued from Page 81

mechanics in 16 centers last year, aims at training 150,000 this year. While some fleet mechanics have benefited from this program, most of these men are employed in the GM system, and your chances of getting them are slim.

For mechanics employed in fleet

shops, there is service data provided by equipment manufacturers in film, manual and bulletin form. As equipment grows more complex, however, there's a large need for additional in-service training of mechanics.

A full discussion of the me-

chanic shortage and it's long-term solution would require more space than is available for this article. That's why various phases of the subject will be covered in future issues of **COMMERCIAL CAR JOURNAL**.

In general, here's the way the problem shapes up:

1. There's a major job still to be done at the level of the schools to recruit young, capable, intelligent people for training as mechanics. This will involve a major selling job, may require upgrading the mechanic's title to something more appealing, such as "automotive technician."

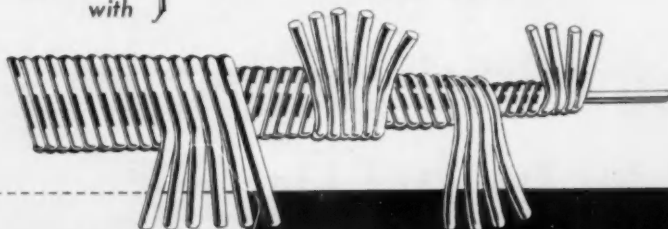
2. Distasteful as it may be to some people in the automotive industry, it may be necessary to enlist union cooperation in an apprentice program. This has hazards, it's true, but it may help to establish at least minimum standards for those who claim to be mechanics. As things stand now, there's no formal definition of the term "automotive mechanic," relatively little incentive for men to develop their knowledge and skills to the maximum.

3. As competition for trained mechanics grows, it will be necessary to improve working conditions for the men you now have, if you want to keep them. Adequate shop facilities, decent working conditions, fringe benefits, incentives, and opportunities for promotion will all be needed to

(TURN TO PAGE 154, PLEASE)

Replace worn
or broken
speedometer
flexible shafts
with

STEWART-WARNER FLEXIBLE SHAFTS



STEWART-WARNER
**21-strand
core**

**...used as original
equipment on leading
makes of trucks and
passenger cars!**

Insist on Stewart-Warner—the quality line of core and casing—products of over 50 years of experience in supplying speedometers and speedometer drive equipment to the leading car, truck and bus manufacturers!

Cut maintenance costs—benefit by the important extra advantages of Stewart-Warner 21-strand core construction:

Less "Backlash!" All flexible core will show some torsional deflection or "backlash" under load . . . but careful control of winding operations, combined with rigid standards of inspection, insures a minimum

backlash in Stewart-Warner core.

Non-Raveling! Stewart-Warner core will not ravel when cut. Uniform throughout entire length, regardless of whether tips are put on at the factory or in the field.

Flexible! Correct tension is applied during winding—so that core is soft enough for easy handling and silent operation, yet hard enough to give maximum wear resistance.

Uniform! Top Quality! Careful inspection and manufacturing control is your assurance of the long service life for which Stewart-Warner products are famous.

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New Black & Decker Heavy so rugged — we dare offer a



Performance Curve Remains Constant with Use! Constant acceleration cam is designed to compensate for use and maintains top efficiency over a long period of time. The cam also protects motor and driving mechanism from shock, prolonging the life of the tool.

Packed with Advanced Features!

1. **POSITIVE-ACTION REVERSING RING** protected from accidental operation by stationary end cap
2. **REDUCED OPERATOR FATIGUE** ... pistol grip handle and perfect balance provide maximum comfort
3. **LOWER MAINTENANCE COSTS** ... all mechanical parts are ruggedly constructed to last longer

Plus: Twice the Airflow of Comparable Tools • Cannot Stall or Overload • Uniform Output • Rated above 120 Ft. Lbs. Torque

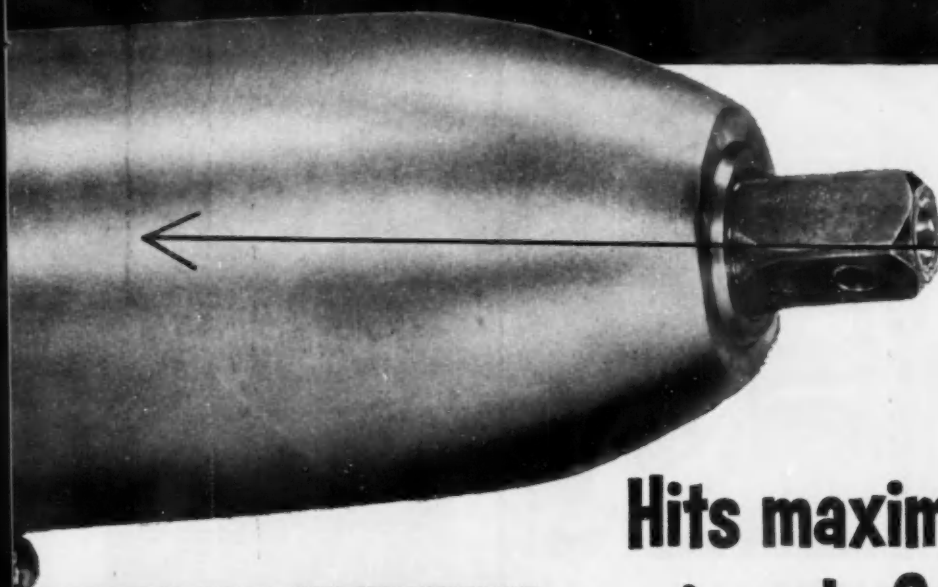
For as little as
\$10⁰⁰
Per month

... you can pay for this tool out of profits! You don't need a co-signer. You're not penalized for advance payment. And you get full fire, theft, and group credit life insurance!

No other manufacturer DARES MAKE THIS SPECIAL OFFER!

Only Black & Decker covers each Impact Wrench with a full year's free service certificate! You're protected against all maintenance cost resulting from normal use of this rugged tool!

— Duty **IMPACT WRENCH** year's FREE service certificate!



Absorbs Shock! Patented armature construction. Specifically built for the B&D Heavy-Duty Impact Wrench.

Hits maximum impact in only 6 seconds!

Our revolutionary full year's *free* service certificate is your best tip-off on how we feel about this rugged, new Black & Decker Heavy-Duty Impact Wrench! No other manufacturer dares make this special offer—because no other impact wrench runs as cool, lasts as long, performs so well.

On top of this, the Black & Decker Impact Wrench hits maximum torque when other tools are just warming up—because of an exclusive new constant acceleration cam!

Result: you speed up every job, handle more jobs per day. And there's no costly maintenance to eat into that additional income! For a real eye-opening performance, have your B&D distributor demonstrate this *Power-Built* tool. Or write for full details to: THE BLACK & DECKER MFG. CO., Dept. 3910, Towson 4, Md.

Look in the Yellow Pages under "Tools-Electric" for Nearest Distributor

600 Hours' Continuous Torture Test—and still going strong! No stops needed for repair or replacement! Performance remained constant as the test continued, due to explosive design of the impacting mechanism.

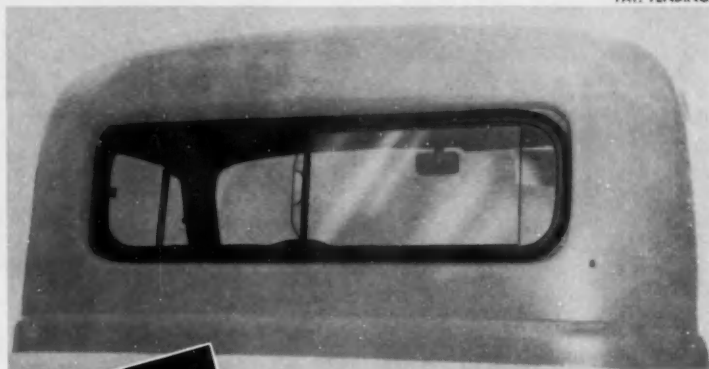


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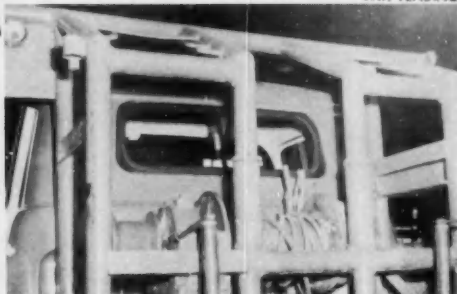
Does not
change or damage
the truck cab

Installs
quickly and easily,
in less than 20
minutes

Air conditioning
without refrigeration

You'll have a full rear work opening for operating your winch controls and straightening cable. You'll be able to hear instructions more clearly and have better ventilation. Your job can be done easier, faster and safer.

PAT. PENDING



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1955-56 GMC
1954 Improved, and all
1955-56 Internationals
1955-56 Diamond "Ts"
Restyled
1941-56 Studebaker
1952-56 White (3000 Series)
1955-56 Auto Car (all) FM
& SFM
1940-56 Reo
All "B" Model Macks

IT'S IDEAL for oil field trucks, movers, wreckers, transports, logging, utility trucks, bodies and general heavy hauling trucks.

Barber's Sliding Rear Windows can be supplied for any truck. These slide easily, contain safety glass, lock when closed, weather proof and stay in.

Barber's Well Packaged Unit may be delivered, overnight, to many areas

See Your Local Dealer or Write for our Brochure

\$37⁵⁰

F.O.B. OKLAHOMA CITY

Subject to Change
Without Notice



BARBER'S GLASS & MANUFACTURING CO.

13 & 15 HARRISON, BOX 588, Phone FOrest 5-4358, OKLAHOMA CITY, OKLA.

Help Wanted

Continued from Page 150

hold present employees, attract new ones.

4. Shop procedures may have to be revised to allow the use of semi-skilled helpers instead of requiring first-class mechanics. Assuming the shortage lasts any lengthy period of time, first-class mechanics will attain supervisory and lower management levels. On-the-job training programs, to upgrade semi-skilled helpers, will become more common than they are now, may become standard practice in larger fleet shops.



One contribution to efforts to arouse student interest in the automotive service field as a career is this bulletin-board poster, now being distributed among the nation's 1200 vocational schools by Chilton Co.'s book division. Chilton is also publishing a new series of text books for use by students in automotive shop classes.

How do things look as far as an-early solution is concerned? Frankly, they're none too good at present. With all due credit to the work that has already been done on the problem, it's still a long way from a solution.

Next step would appear to be to establish an industry-level program in which equipment manufacturers, their dealers, educators, vehicle operators, and union representatives could draw up a plan of action.

END

Please Resume Reading Page 82

Holland Truck Station Open for Business at Flora, Illinois



**PureTruck Station just east of Flora on U.S. 50 and 45
a standout in fastest growing network of truck stops**

Here's the new PureTruck Station truckers are calling the finest on the Kansas City to Cincinnati run. It's the Holland Truck Station located just east of Flora, Illinois, on U.S. 50 and 45.

Take a quick look at these ultramodern conveniences and you'll understand what sets Holland's Truck Station apart from ordinary truck stops:

- complete air conditioning
- private sleeping rooms
- outstanding restaurant with fine food at truckers' prices
- spacious truckers' lounge
- 14 acres of parking with broad approaches and drives
- road and fire service
- icing facilities
- adjoins airport for air freight connections
- truck-sized service facilities with two drive-through bays and trained truck service specialists
- large completely tiled rest rooms and showers
- mail and message center
- roomy pump islands for quick in-and-out service
- complete line of PURE truck tested products

Be sure your drivers and rigs get the best of care by putting the Holland Truck Station down as one of your regular stops. Schedule stops at other complete one-stop PureTruck Stations from Minnesota to Florida.

YOU'RE INVITED
to stop at the PURE OIL SUITE, Room 504
Waldorf-Astoria Hotel
while attending the American Trucking Associations Convention
October 21-26

Be sure with Pure



FTC Says Fruehauf Violates Clayton Act

FRUEHAUF Trailer Co. has been charged by the Federal Trade Commission with violating the "anti-merger" Sec. 7 of the Clayton Act through acquisition of four trailer makers and one tank maker since

1947. Initial hearing is scheduled for the 30th of this month in Detroit.

The five companies are Carter Mfg. Co., Brown Equipment & Mfg. Co., Hobbs Mfg. Co., Strick Corp. and Independent Metal Products Co.

The Charges . . .

In addition to the "anti-merger" charge outlined above, Fruehauf also is charged with exercising potential monopoly power to frustrate the growth or survival of its small competitors by offering buyers special financing deals these competitor manufacturers cannot match.

The anti-merger count of the Commission's two-count complaint charges that Fruehauf has increased its dominant position in the industry through acquisitions that threaten competition in violation of the Clayton Act. An example of increased concentration, according to the complaint, is in 1955 new truck-trailer sales where Fruehauf and the acquired companies accounted for over 48 per cent of the market as compared with Fruehauf's individual share of 37 per cent.

The second count charges that Fruehauf's position of industry dominance together with the fact that it owns its own finance company enables it to control and offer more advantageous and abnormal financing in a market where this is a matter of major importance to buyers. According to the complaint, this results in an unfair competitive practice in violation of the FTC Act.

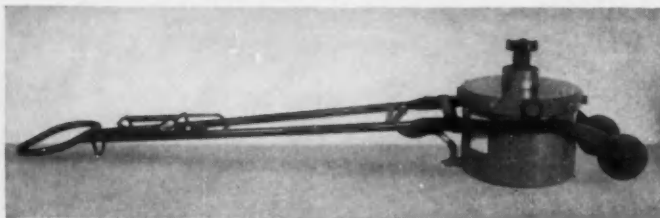
Fruehauf's Answer . . .

In an answering statement, Fruehauf said acquisition of the companies "does not constitute a design to throttle competition." Adding that demand for highway freight equipment has been growing because of the expanding highway transportation industry, making it necessary for Fruehauf to "move ahead to satisfy this demand. There is ever room for others."

The Fruehauf statement said the company has supported and conformed with all laws that apply to its business and that its formal answer to the complaint will demonstrate that the allegations are without foundation.

Touching on the financing subsidiary charge, Fruehauf said that it has done more for the small trucking operators than any other private or government lending agency and that customers are free at all times to pay cash or arrange financing through other agencies. He said the finance subsidiary was necessary to provide capital for many small businesses whose credit needs could not be supplied by short term commercial bank lenders and who could not compete for funds in the long-term capital market with large borrowers.

SPEED UP TRUCK SERVICE WITH THE



BRANICK Air Operated TRUCK JACK



LIFT TRUCK AXLES LIKE THIS WITH LOTS OF POWER IN SECONDS

This truck jack has revolutionized truck axle lifting and out-modes the old conventional methods.

You can position jack, lift and lower axle without crawling under truck.

No effort to use as this jack adjusts in a jiffy to wheel to work area and folds up to take less space when not in use.

Your air line furnishes the power. 12 1/4"

diameter cylinder lifts 9 tons with 160 lbs. jack air pressure—100 lbs. lifts 5 tons. You'll save time and money with this fast easy operating truck jack.



HERE IS COMPLETE PROTECTION

From blown-off side or lock rings when inflating truck tires.

BRANICK TRUCK TIRE SAFETY INFLATION CAGE

Write for Our Complete Catalog

BRANICK PRODUCTS CO., INC.

FARGO, NORTH DAKOTA

CABLE: BRANICK, U.S.A.

In Canada: Write for name of nearest jobber. All other exports write: Branick Mfg Export Co., 82 Beaver St., New York 5, N. Y. Eastern Sales Office: 227 West Exchange St., Akron, Ohio.



"Tripled period between overhauls with Cities Service C-300 Motor Oil!"

A report from Mid-States Steel and Wire Co., Crawfordsville, Indiana.

Hauling 35,000-pound loads of wire within a 300-mile radius of the Crawfordsville plant, trucks of the Mid-States Steel and Wire Company take a steady beating.

But you'd never know it from their overhaul period! . . . Not since they switched to Cities Service C-300 Motor Oil.

Says Foreman Harold Holman: "A few years ago, before we started using C-300, our trucks were averaging 40-50,000 miles before overhaul. But with C-300 Motor Oil, we've been able to extend overhaul periods up to 140,000 miles! In fact, one truck was recently traded off after it had gone 325,000 miles with original pistons and only one change of rings!

"We're also extremely pleased with Trojan H-2 Multi-Purpose Grease. Formerly, we had to pack the wheels every 10,000 miles and suffered from water penetration. Today,

with Trojan H-2, we only need to pack them every 20,000 miles, and we're getting far better protection against water. Needless to say, Cities Service has helped us save a lot of money through reduced maintenance expenses."

Again and again, fleet operators report extraordinary results such as these with Cities Service lubricants. If you'd like to see what these lubricants can do for you, talk with your local Cities Service representative or write Cities Service Oil Company, Sixty Wall Tower, New York 5, N. Y.

THIS LUBE JOB with Cities Service Trojan H-2 Grease will last longer and give greater protection than previous grease, according to Mid-States. They now pack wheels every 20,000 miles. Formerly they did it every 10,000 miles.



TRUCK IN BACKGROUND, like entire Mid-States fleet, hauls maximum 35,000-pound loads of wire such as this. Nevertheless, one unit recently ran 325,000 miles with original pistons and only one ring change, using Cities Service C-300 Motor Oil!

CITIES SERVICE
QUALITY PETROLEUM PRODUCTS

SPICER ENDS

Spicer Thornton POWR-LOK Keeps Power



SPICER THORNTON POWR-LOK CONTROLS "WILD WHEELS" ON SNOW, ICE, MUD



SPICER THORNTON POWR-LOK CONTROLS "WILD WHEELS" ON ROUGH, BUMPY ROADS

DANA CORPORATION • TOLEDO 1, OHIO

"WILD WHEELS!"

Geared to BOTH Driving Wheels!

THE Thornton POWR-LOK principle is another in the ever-growing list of safety- and power-transmission innovations developed by Dana engineers and Dana resources. It is a new concept of controlled driving-wheel power . . . the most revolutionary rear axle design in volume production since the invention of the differential itself!

The Thornton POWR-LOK Differential in Spicer Axles now makes possible the automatic delivery of controlled torque to BOTH driving wheels under all tractive conditions, and ends "wild wheels" often occurring in ordinary axles.

No more "wild wheels" that spin uselessly in mud,

ice, sand or snow. The Thornton POWR-LOK Differential enables the wheel with the *better* traction to apply the *major* driving force to the road, thereby enabling the vehicle to move.

No more "wild wheels" that spin at high speed when bounced into the air by bumps or holes and then come down with sudden stoppage, causing dangerous car swerve or destructive tire scuffing.

The Spicer Thornton POWR-LOK keeps delivering safe, controlled torque to BOTH wheels at all times, adjusting itself instantly to varying road conditions, and assuring steady propelling action to the vehicle.



Write for brochure illustrating and describing the efficiency and safety aspects of the new Thornton POWR-LOK Differential as now offered exclusively in Spicer Axles. Available for passenger cars, and light and medium-duty commercial vehicles.



Spicer

SPICER PRODUCTS: TRANSMISSIONS • UNIVERSAL JOINTS • PROPELLER SHAFTS • AXLES • TORQUE CONVERTERS • GEAR BOXES • POWER TAKE-OFFS
POWER TAKE-OFF JOINTS • RAIL CAR DRIVES • RAILWAY GENERATOR DRIVES • STAMPINGS • SPICER and AUBURN CLUTCHES • PARISH FRAMES • SPICER FRAMES

TMT Trailerships Span Caribbean

Continued from Page 74

Formerly owned by the West Indies Fruit and Steamship Co., West Palm Beach, Fla., the "Florida Queen" was previously used as a railcar ferry between Florida and Cuba. Modification of the vessel from a rail car ferry to a trailership will increase the vessel's ca-

capacity and speed. When it operated as a rail car ferry and fully loaded with 24 rail cars, its speed was only 15 knots and utilized 65,952 cu ft for commercial cargo space in the railroad boxcars. After the vessel is modified to a three-deck trailership its commercial

efficiency will have been increased to a capacity of 261,500 cu ft for roll-on/roll-off cargo and it will operate at a speed of approximately 17 knots.

The "Florida Queen" as a rail car carrier required about eight hours to load and unload. As a trailership, utilizing the new "Trailerloader" system, the vessel will require only four hours to load and unload.

Loading System

The "Queens" will feature a patented loading system which is said to double the speed of handling, and eliminates the use of tractors on the ship. Invented by TMT's President, Eric Rath, the "Trailerloader" system consists of two parallel guide rails which are slightly wider than a trailer's body. Within the guide rails there is a double track running the length of the ship's deck. Trailers are loaded at the front of the track on a specially designed "dolly rabbit" and are then attached to an endless cable located in the center of the tracks. Electric power moves the cable, towing the trailers at from 4 to 8 mph to the spaces allotted to them. There the trailers are tied down with a special stabilizing lashing device. To unload the trailers the system is reversed.

Four track systems will be imbedded in each of the lower and middle decks of the "Queens." The third cargo deck will be used to carry automobiles which will be driven aboard under their own power over a separate ramp. Trailers and automobiles will be loaded and unloaded simultaneously on all three decks. With this system, the vessel can be loaded or unloaded in four hours compared to almost three days for handling the equivalent amount of cargo on conventional ships.

Per Ton Cost Cut

For its success in developing fast and efficient roll-on/roll-off methods, TMT received the National Academy of Science award for 1955 as the pioneering operation that has contributed most to the transportation industry in recent years. A study of the operation by

(TURN TO PAGE 162, PLEASE)

Why Risk Losses?
Get positive protection
for perishable cargos!



HUNTER ^{LP}_{GAS} CARGO HEATER

Here's safe, sure, positive protection against freezing or harmful heat loss — standby and enroute. The Hunter LP-Gas Cargo Heater gives you a constant flow of controlled heat to every part of your cargo space.

Two easily installed models: UH99, illustrated at right, is a complete self-contained unit readily transferable from trailer to trailer; Model UH98 is for permanent installation with its bottle carrier mounted under the trailer floor.

OUTSTANDING ADVANTAGES

- Exclusive new jet-type burner forcefully entrains high volume of heated air.
- Operates for 24 hours at top heat — at very low cost. 16,000 BTU/hr.
- Completely independent of vehicle engine and battery.
- Accurate thermostatic control — no "hot spots" — no "cold spots."
- No moving parts — no maintenance problems.
- Safety pilot — meets all ICC safety regulations.
- Compact — takes up less cargo space — cargo can be placed within 4 inches of heater.
- Operates in coldest weather — on or off the road.

Write for literature, complete specifications.



HUNTER

MANUFACTURING CO. 30525 Aurora Road, Solon, Ohio

FOR EXTRA SAFETY . . .

MEET THE NEW ICC REGULATIONS WITH MIDLAND EQUIPMENT!



Dash hand valve is automatic and manual, functioning as a part of Midland's breakaway system. If emergency line pressure goes below 40 PSI, it automatically applies trailer brakes. They may also be applied and released manually by driver.

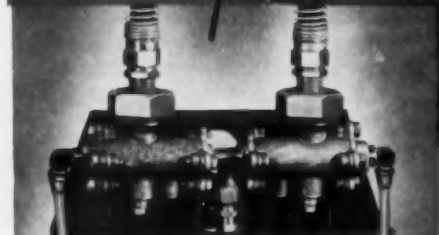
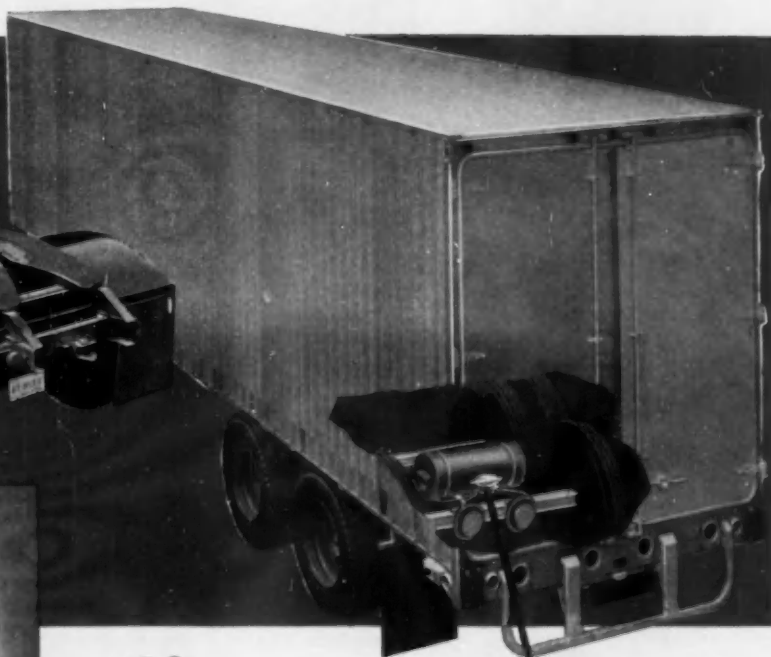
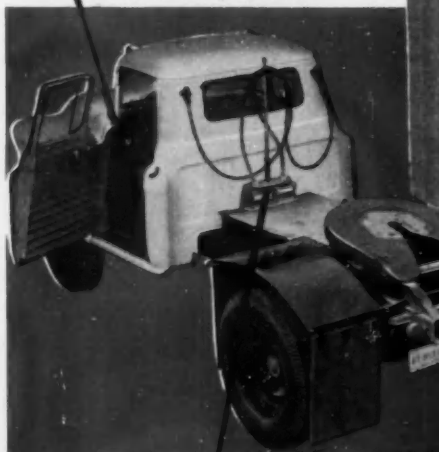
Midland's tractor-trailer braking system is designed for the ultimate in braking protection. With this new system (1) tractor protection is **AUTOMATIC**, so important in split-second emergencies; (2) valves are large-capacity, giving you faster, more positive action; (3) you have a *combination* manual and automatic dash control valve for *instantaneous* application and release of trailer brakes; (4) manual shut-off cocks are eliminated . . . Specify Midland Power Brakes for extra quality performance, more positive protection. Make it Midland, too, when replacing or modernizing the braking system on your present equipment. Your nearest Midland distributor is anxious to serve you. Just give him a call.

THE MIDLAND STEEL PRODUCTS CO.

6660 MT. ELLIOTT AVENUE

DETROIT 11, MICHIGAN

Export Department: 38 Pearl Street, New York, N.Y.



Automatic shut-off valves eliminate hand-operated shut-off cocks and function as part of the Midland breakaway system to retain adequate tractor pressure for breakaway protection.



**GO
MIDLAND**

**AND STOP
SAFELY!**

Midland's new air emergency relay valve meets the "no feed back" requirement. Designed to reduce application and release time. Safeguards against vehicle driveaway without sufficient air in the system.



machines • materials • methods



Magnus
Miji-Dip

Cleans Carburetors and Small Parts Quickly . . . Automatically!

With the air-powered Magnus Miji-Dip and Magnus 755 cold tank cleaner, carburetors and other small parts can be cleaned thoroughly and quickly—no long soaking, no hand dipping or scrubbing.

Because the parts are mechanically agitated up and down in the cleaner (no air bubbles to drive off the solvents and wear out the cleaner) thorough cleaning is assured and at lowest cost. Too, Magnus 755 is safe to use on any metal.



Small enough to fit on any bench where the work is being done, the combination of Magnus Miji-Dip and 755 is ideal for every shop, large or small. Low initial cost and only pennies to operate.

Write to Magnus Chemical Co., Inc., 38 South Avenue, Garwood, N. J. for Bulletin 38.3 which illustrates the simplified and efficient cleaning of Magnus Miji-Dip and Magnus 755.



AUTOMOTIVE DIVISION

MAGNUS CHEMICAL CO., INC.

—a world-wide organization specializing in cleaning and protection of all surfaces.

TMT Trailerships

Continued from Page 16

an impartial, non-profit organization showed the basic cost of cargo handling under conventional methods at \$12.00 per ton and the basic cost with TMT's system at about \$2.00 per ton.

A new trailership terminal, designed for maximum efficiency of trailership operation was opened by TMT at Jacksonville, Fla., in May of this year. It will be the home port of the two "Queens." TMT's present LST's dock at the terminal by nosing into a slip or berth which has a ramp leading to their upper decks. When docked, the vessel's lower deck nose ramp is level with the parking area. The terminal area includes parking facilities for a large number of trailers as well as modern office facilities. However, with trailer freight volume constantly increasing, plus the marshalling space required for trailer movements for the new "Queens," already TMT is seeking to arrange for increased terminal facilities. With the addition of the recently announced "piggy-backing" from New York and Philadelphia via the Seaboard Airline and the Pennsylvania railroads to connect with TMT's "fishy-back" operation, TMT expects its terminal facilities to be stretched even more.

Inter-Island Service

In developing service between Puerto Rico and other Caribbean islands, TMT recognized the need for self-propelled vessels capable of carrying fewer trailers and able to operate in shallow water. At first the inter-island service was handled by the "TMT Virgin Isle," a converted LCT capable of carrying six trailers and two automobiles. Powered by three diesel engines and equipped to carry refrigerated trailers, it provided twice-weekly overnight service from San Juan, P. R., to St. Thomas and St. Croix in the Virgin Islands.

In May of this year TMT launched the "TMT Seatruck Lloyd," first of a fleet of specially-designed "Seatrucks" which will be used to expand the inter-island service. (TURN TO PAGE 166, PLEASE)

Invulnerable

to cuts and ruptures in the tread area!



Here's why... exclusive

SAFETY *STEEL* SHIELD*

Here, between tread and cord body, are thousands of cords of flexible steel. This Safety Shield is invulnerable to cuts and ruptures for original tread life *and* extra recap life!

**Patent Applied For*

U.S. ROYAL *Super* **FLEETMASTER**

You are looking at a new kind of on-and-off-the-road truck tire. It is so *immune* to road hazards it runs over razor-sharp axblades without losing a pound of air. It has the deepest tread U. S. Royal has ever built into this type of tire. It is so *versatile* it outperforms on any wheel—gives greater stability on front wheels, increased traction on drive wheels, extra recaps on trailing wheels.

For dump trucks, transit mixers, log haulers... on any rig exposed to heavy impacts, tire-killing terrain. You'll enjoy fewer tire failures, less downtime expense, greater service dependability.

In sizes through 11.00. See your U. S. Royal Dealer... or write Truck Tire Department. You can specify "Super Fleetmaster" on your new equipment.



United States Rubber

Rockefeller Center, New York 20, N. Y.

Look at Revere's new aluminum body



for refrigerated foods!

Another "first" by Revere . . . Designed in close consultation with men who know the fine points of building and operating refrigerated units, this new Revere development is available to all body builders. The first body of this new aluminum design has already been built by The Schnabel Company of Pittsburgh, Pa. for the I. N. Hagan Ice Cream Company of Uniontown, Pa. It has the following advantages:

- _____ *Lighter weight—for increased payload*
_____ *—for lower operating and maintenance costs*
- _____ *Non-toxicity*
- _____ *Higher resistance to corrosion*
- _____ *Longer life*
- _____ *Excellent insulation efficiency*
- _____ *Easier to build*
- _____ *Revere's superior aluminum reefer floor sections*

These are simply the highlights. This new Revere design has many other advantages. You can inspect them fully at the Truck Body & Equipment Exposition at the Hotel Sherman in Chicago, October 29 to 31 inclusive, at Revere Booths 154-155.

In addition, at Revere Booth 75, you can see the construction details of this body as well as Revere's Reefer and Dry Freight Floor Sections. If you cannot visit our booth, ask your body builder or automotive distributor for details. Or write Revere for descriptive literature.

NOTE: Revere does not build bodies—but Revere's designs, specially engineered Aluminum Extruded Shapes and other aluminum parts, along with detailed assembly information, are available to body builders everywhere. So also is the Revere Technical Advisory Service for consultation on problems concerning metals.



REVERE COPPER AND BRASS INCORPORATED

*Founded by Paul Revere in 1801
230 Park Avenue, New York 17, N. Y.
Sales Offices in Principal Cities*



Hot solution at 300 p.s.i. from Malsbary 250 quickly removes stubborn grease, mud, dirt, ice and grime (in winter) from tractor and 38,000-lb. payload trailer.

How to Reduce Truck Cleaning Costs — Use Malsbary HPC Cleaners

There are two major items in cleaning costs: Actual expense of cleaning, which is 50 to 80% labor; and hauling time lost while trucks are being cleaned. You can cut both with a Malsbary 250 HPC cleaner, just as Mushroom Transportation Co., Philadelphia, does.

Mushroom operates nearly 600 pieces of equipment, including 250 trailers, 95 road tractors, 125 pick-up and delivery trucks. Bulk of hauling is "dirty cargo"—charcoal, hides, oils, paints, cement, chemicals, building materials. Its Malsbary 250 steam cleans insides of trailers and trucks after "dirty cargo" hauls; cleans repair parts and fifth wheels; keeps equipment exterior spic and span; prepares chassis for painting.

"Naturally we're concerned with the big 38,000-pound payload jobs which give us our biggest profits—and we are more than satisfied with the short time the Malsbary 250 takes to clean them up for the next haul. There's no better or more economical way to do this dirty work," says Wm. Cutare, shop superintendent.

Why Malsbary HPC Saves Time

HPC (meaning high pressure combination) combines pumped hydraulic and thermal pressures, gives you a 300 to 400-lb. cleaning blast, hot or cold, with or without solution. This HPC blast cleans twice as fast as the largest steam vapor cleaner; 4 to 10 times faster than most, easily handles jobs other cleaners can't touch—and at 1/2 to 1/4th the cost. HPC cleaners also supply wet steam for degassing and heating; low pressure hot water for rinsing.



Full swivel steam gun with orifice in nozzle, assures straight ahead, hard-hitting stream; makes short work of parts cleaning.

Why not put HPC to work for you? Ask your Malsbary dealer for a demonstration NOW, or write today for free literature.



Room K10, 845 92nd Ave., Oakland 3, Calif.

TMT Trailerships

Continued from Page 162

vice. The "Lloyd" is self-propelled, has twin diesel engines developing 520 hp and a speed of 12½ knots per hour. It is capable of carrying four hi-cube trailers, but can also carry up to nine specially designed Prairie Schooner trailers, made for TMT by Wells Cargo Co. These 20-foot tandem trailers are pulled by a pick-up truck over the narrow mountain roads and sharp curves of the islands. They are supplied only to private carrier shippers, with TMT acting as a common carrier on the water. As an alternate cargo the "TMT Lloyd" can carry up to 18 automobiles.

On June 1st, at the request of the Army's Transportation Corps, the "Lloyd" was successfully demonstrated before high military officials (Aug., page 88) in conjunction with a railroad "piggyback" demonstration.

Actually the "TMT Lloyd" is the prototype and forerunner of a fleet of self-propelled Super Sea Trucks which TMT now has in the planning stages, and which will eventually be built to service other Caribbean areas. When completed, the Super Sea Truck will be approximately 170 ft long. It will be powered by two 900 hp diesel engines, will carry from 28 to 32 trailers depending on their size. It will carry 11 men and will cruise at 17 knots. Plans call for it to be capable of taking loads aboard from a dock or from any convenient beach by using its nose ramp.

Economic Impact

While TMT's operation is still in the pioneering and expanding stages, it has already produced impressive benefits for Puerto Rico and the other Caribbean islands. Here's the picture, as summarized for COMMERCIAL CAR JOURNAL, by Harold Hummel, Vice President in charge of TMT's Technical Operations:

"Puerto Rico recently celebrated its tenth year since it undertook its drive to improve the economy of an island inhabited by approximately 2,250,000. Under its "Operation

(TURN TO PAGE 174, PLEASE)

Best for service needs!



Model E12.9A —
12 ton axle jack.



Increase your shop safety and efficiency with dependable, trouble-free Hein-Werner Hydraulic Jacks. You can't buy better. Check for yourself these worthwhile Hein-Werner features:

HEIN-WERNER HYDRAULIC JACKS

Built for fast, easy,
safe-handling of all
heavy-duty jobs!

- One piece hardened extension screw.
- Heavy malleable iron top nut.
- Pressure tested castings.
- Center-balanced malleable handle socket.
- Exclusive "Heinite" piston.
- Carrying and positioning handles.
- Positive, direct release valve.
- Convenient two-piece pumping handle.
- Factory tested at 1½ times rated capacity.
- Large sled-type base of pressure tested malleable iron.

Compare Hein-Werner Hydraulic Jacks feature-for-feature with any other jack on the market. You will quickly see why Hein-Werner is the popular choice of over three million mechanics and truck drivers. Ask your Hein-Werner jobber for all the facts, or write us.

For Your Protection
all Factory Approved
Service Stations now
display this emblem.



Hein-Werner manufactures and sells more **HYDRAULIC JACKS** than any other company in the world today!

HEIN-WERNER CORPORATION, WAUKESHA, WISCONSIN

The complete Hein-Werner line includes: Under-Axle Jacks of 1½ to 100 ton capacity . . . "Bumper-Lift" Jacks for passenger cars . . . Service Jacks for shop use . . . Adjustable Car Stands . . . Twin Saddle Service Jacks . . . "Push and Pull" and "Pushmaster" Jacks for body, fender, and frame repair work.



DELCO-REMY MODEL 1115400 IGNITION
COIL FOR SPECIAL APPLICATIONS.

available through **YOUR CAR OR TRUCK DEALER**
and nationwide **UNITED MOTORS SYSTEM**



BUILT FOR SUB-ZERO WEATHER!

NEW DELCO-REMY MODEL 1115400

IGNITION COIL IS SPECIFICALLY DESIGNED

TO ANSWER WINTER PROBLEMS

IN 6-VOLT AUTOMOTIVE ELECTRICAL SYSTEMS

Here's the engineered answer to sub-zero starting troubles resulting from burned distributor contact points in 6-volt systems—the Delco-Remy Model 1115400 special-purpose ignition coil. This special-duty unit solves the problem at the source by protecting the contact points from excessive primary currents which cause destructive oxidation. With a Model 1115400 coil on the job, contact points continue to operate at summertime efficiency even in sub-zero weather, thus assuring easier starting, better ignition, longer point life.

Here's more good news! A Model 1115400 ignition coil will also keep contact points working more efficiently in "problem" installations such as taxicabs, door-to-door delivery trucks and other vehicles customarily operated at low speeds and subject to excessive engine idling. The reason is the same—prevention of excessive primary current means less point deterioration.

The special-purpose Model 1115400 is the latest addition to the famous Delco-Remy line of oil-filled service coils—has all of the "eight ways better" features, too! The complete line is available through car and truck dealers and the United Motors System.

DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA

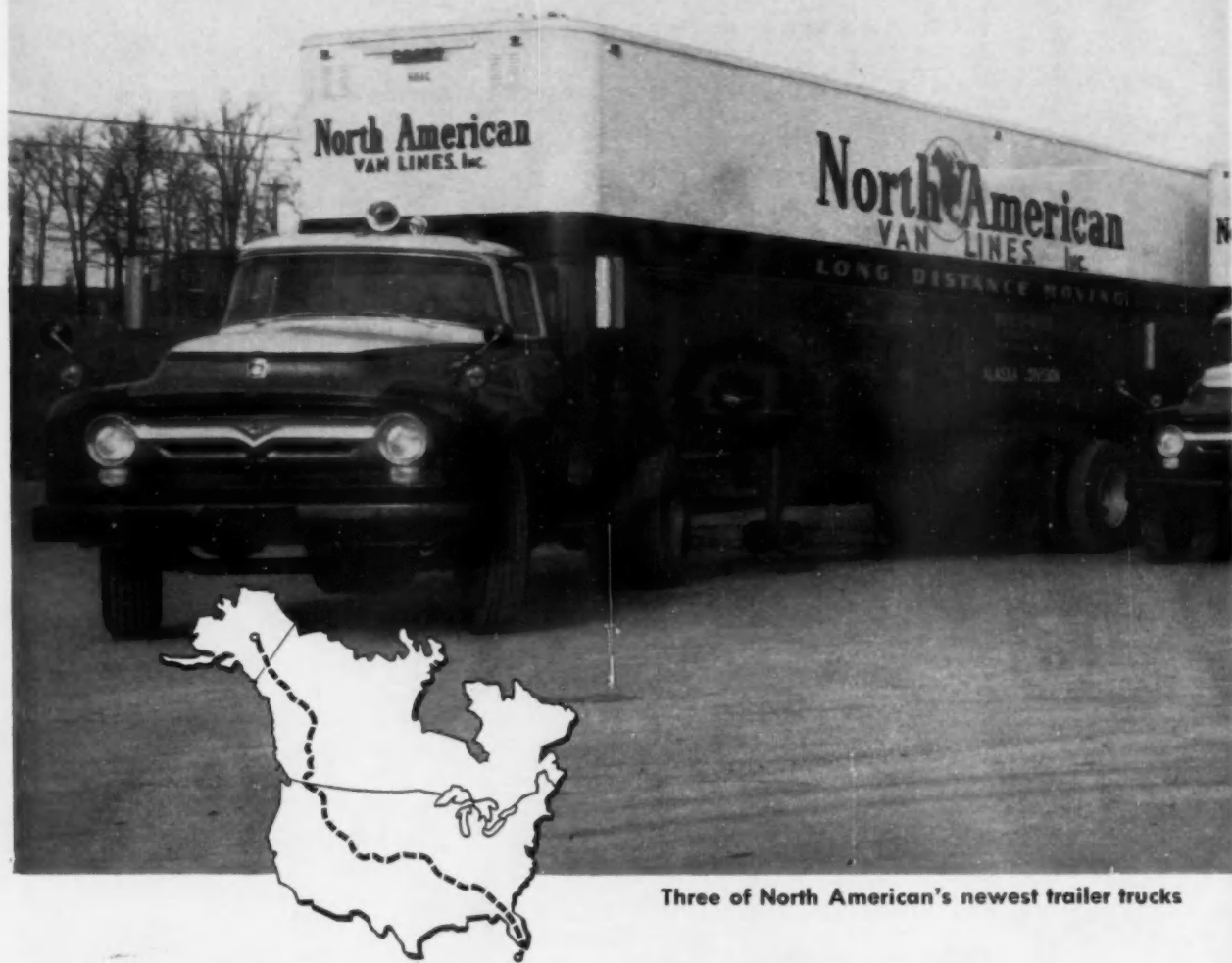
GENERAL MOTORS LEADS THE WAY—STARTING WITH

Delco-Remy

ELECTRICAL SYSTEMS

North American Van Lines, Inc., one of the largest

RAYON CORD



Three of North American's newest trailer trucks

Last year North American's 1700 trucks traveled 37,680,679 miles—through all 48 states, Canada, Alaska and over the longest highway route in the world: Key West, Florida, to Fairbanks, Alaska. *Nearly all of this mileage was covered by rugged RAYON CORD TIRES!*

Rayon's versatility and reliability are vividly demonstrated on the Key West to Fairbanks run. Rayon Tires stand up under all weather and road

conditions encountered along the way, from tropical heat to arctic cold, through plains, over mountains, on highways and country roads.

North American finds Rayon Cord Tires pay off in greater mileage—120,000 miles for the average tire, 60,000 miles on original tread and 30,000 per recap, with two recaps on the average for each tire.

North American also finds that Rayon Tires pay off in less down-time loss due to tire failure—only

motor carriers in the U. S., proves

TIRES PAY OFF!



line up at the general offices in Fort Wayne, Indiana.

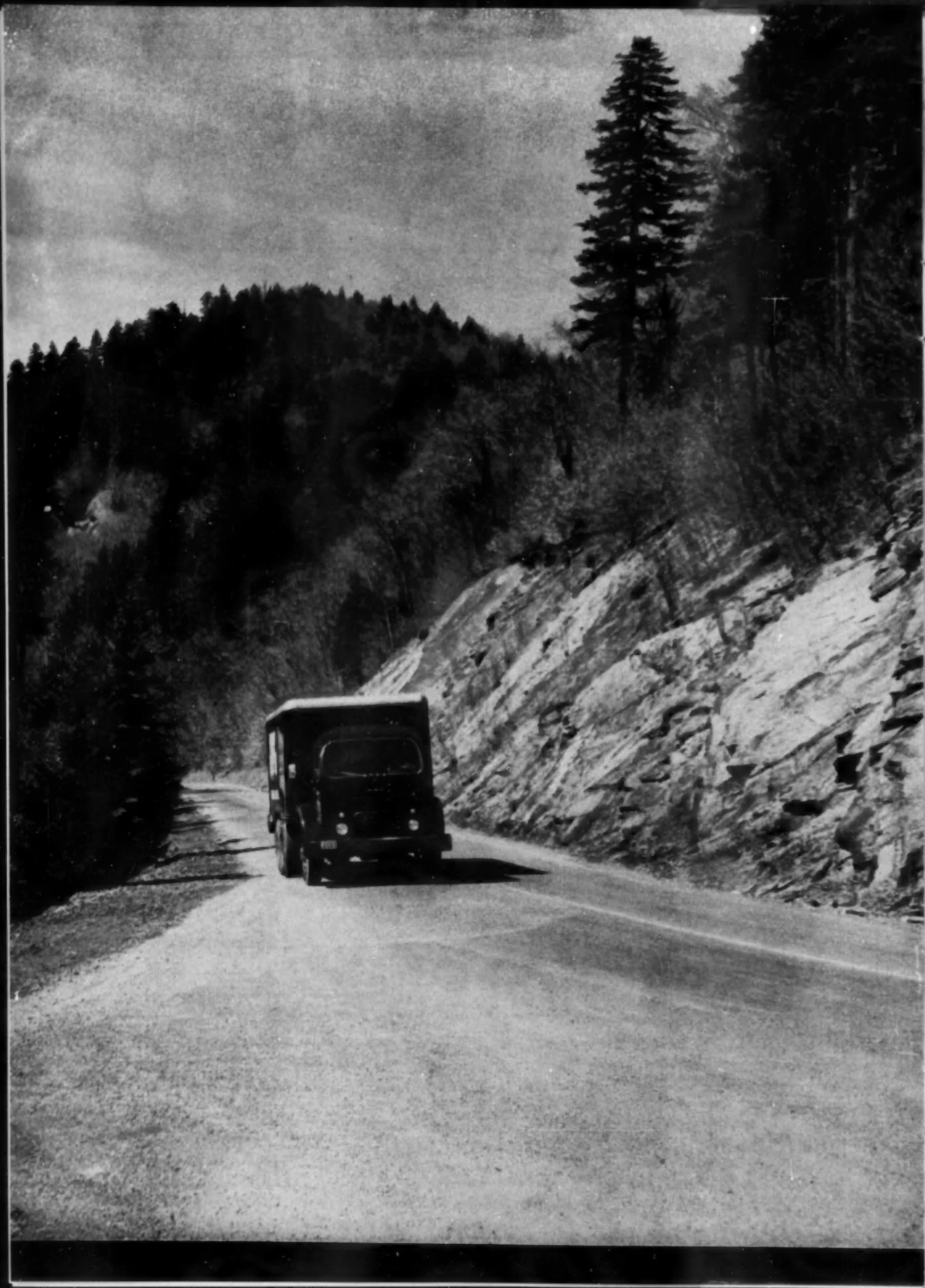
five hours per month! And because Rayon is so dependable, tire inventory is kept to a low 5% — an important money-saving factor.

North American follows a strict tire-checking program. Each tire carries a decal which establishes correct pressures and rotation dates for that particular tire. This system plus Rayon's long-lasting strength keeps North American Van Lines on the move all the time.



Records show that more truckers use RAYON CORD TIRES than any other. They can rely on Rayon because Rayon pays off!

**AMERICAN RAYON INSTITUTE, INC.
350 Fifth Avenue, New York 1, N. Y.**



The only spark plug you can afford is the best spark plug that's made!

As a fleet operator, you know that the efficiency of any engine hinges on its weakest spark plug. The wear on a cylinder wall and piston, through loss of lubricant washed away by unburned fuel, adds up to expensive maintenance in a short period. This can result from using a spark plug that is ALMOST right for the engine.

The best spark plug made is the only right spark plug for your engine. If you're not already using the Auto-Lite Transport Spark Plug, it will pay you to examine this special plug and put it on test in your fleet. You'll find

it's ignition-engineered to give top performance under all kinds of driving in all kinds of service.

You'll find, too, that Auto-Lite Transport Spark Plugs are winning preference for top performance under the toughest kind of comparative tests.

Here is your spark plug—ignition-engineered by Auto-Lite specifically for top performance where performance pays off. It's the RIGHT spark plug for your fleet.



AUTO-LITE SERVICE TIPS

KEEP IT CLEAN WHEN REMOVING SPARK PLUGS FOR A COMPRESSION TEST

Often a piece of hard carbon dropping from a spark plug, as it breaks away from the head during plug removal, will lodge under the exhaust valve, holding the valve open during the compression test. This will result in a low reading. To avoid this here's how to remove plugs correctly to be sure of accurate compression readings:



1. Remove wires and clean recesses around each plug with air blast.
2. Unscrew each plug about one to two turns.
3. Tighten plugs again, replace wires, start engine and race to blow any loose particles from combustion chamber.
4. Stop the engine, remove plugs. Now, make your compression test.

HEAVIER INSULATOR with greater resistance to hi-voltage and to breakage.

INSULATOR TIP ignition-engineered to stay clean longer. Safeguards performance.

OVERSIZED ELECTRODES of a special alloy allow the economies of wider gap with reduced electrical and heat erosion.

AUTO-LITE

spark plugs

Auto-Lite manufactures over 400 products, including Spark Plugs, Batteries, Wire and Cable, and Automotive Electrical Systems . . . sold throughout the United States and Canada.



J-M sealing compounds

*Seal
joints quickly, easily
and permanently*

Johns-Manville Body Sealers are permanently plastic synthetic resin compounds developed for sealing bolt fastened joints against the passage of air, dust, and moisture. They are *highly adhesive, will not skin or harden, will not corrode metals and other surfaces, and can be painted after application.* Stable under a wide temperature range, they have excellent aging characteristics.

Available in these two types:

J-M Type A Body Sealer, of relatively soft, knife-grade consistency. Supplied in 1½" and 3" dia. pugs, extruded beads (min. diameter ¼") and ribbons (min. thickness ⅛"). Recommended for use in bulk form, this body sealer can be readily extruded on the job.

J-M Type B Body Sealer, of heavier, knife-grade consistency. Supplied in 1½" and 3" dia. pugs, in beads (⅜" dia. up), and ribbons ⅜" up. Supplied packed in flat strips or multiple and single strand reels.

Johns-Manville Body Sealers are supplied in a variety of packages for time saving application. For Sheet EL-67A and Chart EL-72A write Johns-Manville, Box 14, New York 16, N. Y. In Canada, Port Credit, Ontario.



Johns-Manville SEALING COMPOUNDS



TMT Trailershops

Continued from page 16.

Bootstrap" 400 new industrial plants and businesses have come to Puerto Rico in the 10-year period. While TMT is not listed as one of them, because its headquarters is in Miami, nevertheless it may be said that we have created the 401st industry.

"About 16 months ago TMT's monthly payroll in Puerto Rico was \$2,000 per month. Today, it is \$45,000 per month and we have increased the number of our employees from 10 to more than 200. There are not too many industries in Puerto Rico that can support such a large monthly payroll.


Longer Production

"Another example—on the island of Vieques, just off the east coast of Puerto Rico, there is a population of about 10,000. At present the island offers employment for three months a year to natives working sugar cane crops. Cane production has decreased due to the abandoning of five sugar mills, which formerly were used to process sugar. Raw cane must now be taken by barge to the mainland of Puerto Rico.


"Another three months employment is offered by the pineapple crop. With the service which will be offered by TMT, additional pineapple acreage will be utilized to furnish employment for the other six months of the year. This service will help to create year-round employment. The transportation offered in the past by the small island schooners made economic advances impossible. TMT will also be able to help the cattle industry develop in the same manner.

"Within the past few months TMT has been bringing into Puerto Rico such produce as watermelons and citrus fruits to demonstrate the ease with which roll-on/roll-off transportation could provide certain fresh fruits, which are scarce in Puerto Rico and available only at premium prices. The response has been highly gratifying and TMT plans to bring in other agricultural products in the near future.

(TURN TO PAGE 180, PLEASE)



**for
SUPERIOR
LUBRICATION
use**



Industrial Lubricants
Recognized Nationally
for their
Superior Quality

LE #1020 HIGH TEMPERATURE LUBRICANT is built "tough" to give your equipment the full protection it needs. Critical conditions of high temperatures, speed, load, vibration and long continuous operation challenge the basic qualities of any lubricant. LE #1020 is engineered to cope with all of these—it provides superior lubrication under the most adverse conditions—will not melt or sling off under high temperature—resists heavy load "pounding" and vibration—maintains a tough durable film at all times.

LE #505 (SAE 90) and #506 (SAE 140) UNIVERSAL GEAR LUBRICANTS are manufactured from the same high quality paraffin base blending stocks as the finest aviation grade engine oils. Their rich, full-bodied film resists rupturing under severe shock loads—gear cases run cooler—consumption is held to an absolute minimum—and acid corrosion of expensive gears and bearings is virtually eliminated.

IT PAYS TO USE THE BEST!

For additional information on LE lubricants, write, wire or call—

**INDUSTRIAL LUBRICANTS
FOR INDUSTRIAL EQUIPMENT
LUBRICATION
ENGINEERS, INC.**
FORT WORTH, TEXAS



Tank Lines, Inc., hauls 3,000 extra pounds of paying freight per trip

A 3,000-pound bonus in cargo capacity will add up to 750,000 pounds of bonus freight per year for this new aluminum transport operated by Tank Lines, Inc., Richmond, Virginia. That's a whopping increase on any trucker's balance sheet. But company president G. C. Kirkmyer, Jr., has still other reasons for buying more tankers just like it. The light weight that accommodates extra cargo also cuts tire wear on return trips; drivers report improved roadability and handling. Aluminum tanks can be cleaned quickly and easily, thus making them ideal for cargo changes from petroleum to liquid fertilizer. Maintenance has yet to cost a dime through 60,000 miles of service.



Alcoa® Aluminum Makes the Big Difference

Your Guide to the Best
in Aluminum Value

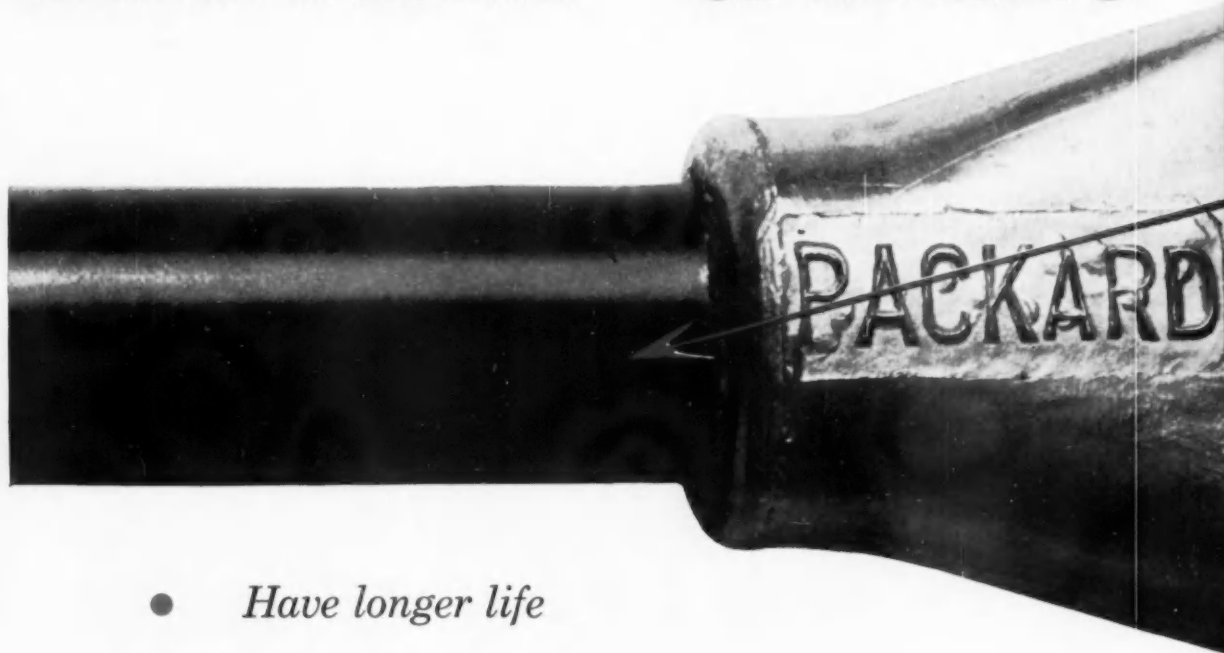


THE ALCOA HOUR
TELEVISION'S FINEST LIVE DRAMA
ALTERNATE SUNDAY EVENINGS

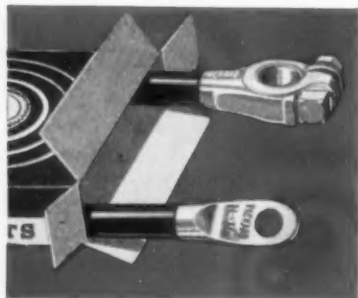
Alcoa Aluminum alloy 5154 was the choice when Great Dane Trailers, Savannah, Georgia, built this tanker—built to unloading working pressure of 35 lbs per square inch. This light, tough, Alcoa welding alloy, approved by the ASME Boiler Code, assured durability in the shell, framing and saddles. It saved weight, too, for added payload and extra gas mileage. And since Alcoa Aluminum is corrosion resistant, expensive painting was eliminated. Besides all these advantages, aluminum tanks can haul the great majority of liquid chemicals. When hauling both chemical and petroleum products, expensive tank lining or tedious cleaning is eliminated. Just hose down the smooth Alcoa Aluminum surface. To learn how you can match these savings, write for *The Road to Payload Profits*, Alcoa's new fact-packed booklet. Aluminum Company of America, 1876-K Alcoa Building, Pittsburgh 19, Pa.

*Exclusive quality features
make Packard Electric
your best buy in...*

BATTERY CABLES



- *Have longer life*
- *Go on and off more easily*
- *Deliver full starting power*



*For new car performance,
use the original equipment line of wiring!*

Packard Electric battery cables are packaged in attractive blue and yellow cartons. For quick, easy installation and trouble-free service, use the cables preferred by most automotive engineers for original equipment. Available everywhere from Packard jobbers.



STRONGER

Corrosion-resistant LeadAlloy terminal has steel insert and raised shoulders for greater strength, better spreading leverage.

PROTECTED

The exclusive acid- and oil-resistant Packard "809" insulation over paper separator protects the full-gauge copper conductor. Special seal protects conductor from acid fumes.

EASY ACTION

Easy action is assured by exclusive and patented compression sleeve and the thread shield that makes repeated removal and replacement possible.

INTEGRAL LUG

Cadmium plated copper "Korelug" terminal at opposite end, bearing cable identification number, is attached with 50-ton press to make the lug an integral part of cable.

Buy the long-life, easy-to-install wiring...

Packard Electric

Warren, Ohio



"Live Wire" division of General Motors



G-E RADIO-EQUIPPED DIESEL RIG leaves Lakeland, Florida head office to pick up livestock at auction. General Electric two-way radio keeps all rolling stock in contact with headquarters.

G-E RADIO EQUAL TO 2 EXTRA RIGS —for a Leading Trucker in Florida's Cattle Country

THE A. L. Bellotto Trucking Company of Lakeland, Fla. hauls up to 4000 head of livestock each week from Florida auctions to processing plants in Georgia. A new G-E Progress Line two-way radio system ties together all Bellotto trucks and Lakeland headquarters so effectively that owner A. L. Bellotto says, "Our General Electric radio system is equal to two extra rigs."

Radio contact with trucks on the road permits closer pickup scheduling, prevents long backtracking, and reduces idle time to the extent that



OWNER A. L. BELLOTTO with General Electric radio-equipped utility vehicles. Fleet of nine over-the-road trucks are also G-E equipped. "Our G-E radio takes the place of two extra trucks," says A. L. Bellotto, "and turns in impressive coverage for us."

without the radio system, two additional trucks would be required to duplicate present activities.

Exceptional Radio Range Reported

Routine operating range for the G-E radio system extends more than 100 miles from Lakeland. Reliable contact with trucks at certain points up to 175 miles from headquarters is not uncommon. Bellotto credits both superior G-E equipment, and a thoroughly-engineered installation for these exceptional radio ranges.



A roving service truck, equipped with a Progress Line super-power (90-watts) mobile radio, often communicates with trucks over a 100-mile radius. Only General Electric offers a super-power mobile unit for extensive truck-to-truck coverage.

G-E Selected Over Other Makes

Owner A. L. Bellotto checked competitive radios before selecting G-E units. Talks with radio users in municipalities, taxi fleets, and other truckers helped him decide on G-E. Reports from General Electric owners everywhere confirm the outstanding clarity, dependability, and low maintenance of G-E 2-way radio.

New General Electric Progress Line radios offer versatile 6 and 12 volt operation, complete chassis interchangeability for easy servicing. What's more, only G-E radios come equipped with 6600 series communications-type tubes pre-tested for rugged duty and long life. Your G-E Communications Counselor has the full information. Call him in, or write today to: *General Electric Company, Communication Equipment, Section A70106, Electronics Park, Syracuse, New York.*

Progress Is Our Most Important Product

GENERAL  ELECTRIC



Glare can be a matter of profit

A man can drive a truck longer, farther, without fatigue, if his eyes are protected from glare. Since a trucker's profit is a matter of time and mileage—reduction of glare is important.

Be sure your next truck has E-Z-EYE glare-reducing safety plate glass in it. It's optional equipment that can be worth far more to you than its slight additional cost.

If you need further information, call your L·O·F Distributor (listed under "Glass" in the yellow pages) or write Dept. 54106, Libbey-Owens-Ford Glass Company, 608 Madison Avenue, Toledo 3, Ohio.



E-Z-EYE SAFETY PLATE GLASS

with the shaded windshield

Reduces Glare, Eyestrain, Sun Heat

LIBBEY · OWENS · FORD GLASS COMPANY · TOLEDO 3, OHIO

Talbert Construction Equipment Co., Lyons, Ill., announces its Model No. TDW-90-RG 90-ton capacity low bed trailer. Loading is eased with both removable gooseneck and removable

rear axle assembly. Hendrickson Model No. T-900 tandem unit has 90,000-lb rated capacity, full width solid bar axles. Standard deck length is 24 ft with added footage available on spe-

cial order. Overall length is 45 ft 9 in., width 10 ft 3 in. Deck design shown is drop-side construction for minimum deck height. Standard platform or beam-type deck is also available.



Safer by a Long Sight...

GROTE CLASS 'A' DIRECTIONAL SIGNAL LAMPS

All Grote Directional Signal Lamps are approved as Class A, Type I, where required. Specially designed plastic 4" lens will not fade or distort...lens shines extra bright regardless of mounting position. Baked black enameled body is heavy gauge rust-proofed steel. Stainless steel door with snug gasket seals out dust, moisture. Single screw fastening on door for easy bulb replacement. Available in 14 complete signal set combinations with manual or self-cancelling switches.

Write today for complete information on Grote lamps and the complete line of Grote truck accessories.



Lamps • Directional Signals • Reflectors • Flares • Mirrors

Distributed throughout the U. S. and Canada

THE GROTE MANUFACTURING CO., INC., Bellevue, Ky. • Opposite Cincinnati

"Ready to Change Course"



No. 404

Double face, amber and red. Lamp Body designed to eliminate daylight glare. 21 c.p. single bulb. Pedestal mount.

No. 401

Single face, pedestal mount.

No. 402

Single face, semi-flush, stud mount.

No. 406

Single face, flush mount.

TMT Trailershops

Continued from Page 174

"We think of TMT as having created a new transport service, as well as having created new markets and new trade. Certain commodities that now move in export and import trade could not move at all if TMT low-cost transport was not available. It is our hope to aid Puerto Rico's economy by encouraging and developing other products to move in export and import trade."

More emphatic about TMT's impact is a recent statement made by Teodoro Moscoso, Administrator of the Economic Development Administration of the Commonwealth of Puerto Rico. Administrator Moscoso is the highest official next to the Governor of Puerto Rico charged with the responsibility of stimulating economic development in Puerto Rico.

He said: "These trailerships used by TMT have great significance to the agriculture, industry and commerce of Puerto Rico. Operation costs are reduced—the worker's productivity is increased—loss and damage of merchandise is lessened—and the receipt and shipment of cargo is hastened. Experience has demonstrated many advantages that may be derived from this type of service.

"TMT service is an important factor in the cost reduction of items imported from the United States and creates still another route by which to channel with speed and at low cost our exports to North America. . . ."

END

Please Resume Reading Page 75

GENERAL AIR SPRINGS



General Air Springs are specified equipment on all new units in Mr. Posnik's fleet of 500 oil rigs, bulk cement units and flats.

"THE GREATEST COST-SAVING SUSPENSION EVER DESIGNED FOR TANKERS!"

Mr. A. F. Posnik, President
A. F. Posnik Co.—Michigan Transportation

One of the original users of General Air Springs, Mr. A. F. Posnik has not only been equipping all new units with this cost-cutting type of suspension for the past five years but also carrying out a complete changeover program on all existing equipment.

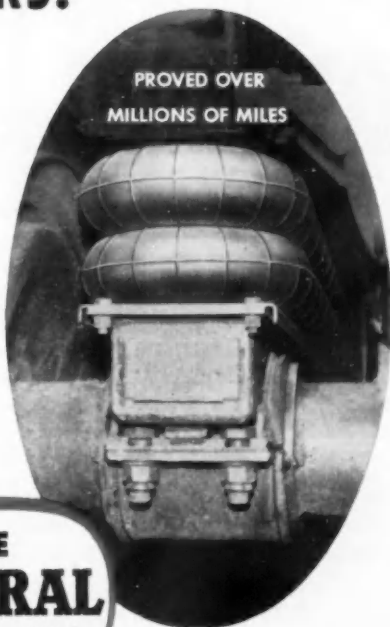
"Since the installation of General Air Springs, we have more than doubled the life of our wheel bearings and brake linings and have greatly increased our tire mileage. With the weight saving of 300 to 400 pounds per tandem axle, we have eliminated tank leakage, which was an expensive item for us."

General Air Springs can improve your profit picture too, by cutting maintenance and operating costs to the bone, by protecting cargoes and equipment against vibration damage. Find out about them today!

*Like A. F. Posnik Co.,—Michigan Transportation, Tank Transport, Taylor Transport and Superior Transport
 ...Specify General Air Springs on new Equipment*

**THE
 GENERAL
 AIR SPRING**

Member of T. T. M. A.



THE GENERAL TIRE & RUBBER COMPANY • AIR SPRING DIVISION • Akron, Ohio

a steady diet of GENUINE DELUXE CARTRIDGES will prevent this:

SLUDGE
on the cartridge
means **SLUDGE**
in the engine!

you **STOP** **SLUDGE**
before it can
form with
genuine

DELUXE

full-depth protected OIL FILTER CARTRIDGES!

DeLuxe Cartridges in DeLuxe filters do more than strain or filter oil...they actually cleanse the oil of sludge-causing asphaltenes and other contaminants *before* they can combine to form sludge. The secret of DeLuxe oil cleansing is long oil travel the *full depth* of the cartridge. Essential to this full depth filtration is the DeLuxe cartridge with its exclusive spring and cone construction to maintain proper density and rate of oil flow.

the **SPRING** provides
DENSITY CONTROL
...protects the cartridge
from collapse, the worst
enemy of full-depth
filtration. Also prevents
filtering medium from
wadding and causing
channeling of the oil.



the **CONE** delivers
UNIFORM OIL FLOW
...assures uniform
oil distribution from
bottom to top of
the cartridge at a
controlled rate
of flow.



Only **DELUXE**
FULL-DEPTH-PROTECTED
cartridges assure
CONTROLLED DENSITY of
filtering medium . . .
L-O-N-G **UNIFORM OIL FLOW**



Send for Free Booklet

"THE KEY TO CLEAN LUBRICATION"

40 pages of Facts about Oil,
Oil Problems and Principles of
filtration that every Fleet
operator should know. Written
in non-technical language—
profusely illustrated.

DELUXE PRODUCTS CORPORATION, LA PORTE, INDIANA
Please send me a complimentary copy of
"THE KEY TO CLEAN LUBRICATION"

NAME.....
COMPANY.....
ADDRESS.....
CITY.....STATE.....

Smile, Mister Parts Man

HERE'S A SOLUTION TO YOUR STOCKING PROBLEM



a perfect stocking plan...

The Weatherhead F-2 cabinet provides a neat, compact stocking plan that is an exact replica of the larger and famous Weatherhead F-1. Designed with 64 clear plastic drawers, this cabinet can hold up to 250 different fittings simply by dropping in specially designed drawer partitions. The cabinet is of sturdy steel construction. Side panel gauges provide ready means for instant physical size identification of parts. Another important fact . . . you can choose from two specially selected assortments. Specifications: 29" wide, 8 1/2" deep (top), 12 1/2" deep (bottom) and 24" high. The F-2 is the fitting answer to your stocking problems. There is a Weatherhead distributor nearby . . . ask him for details.

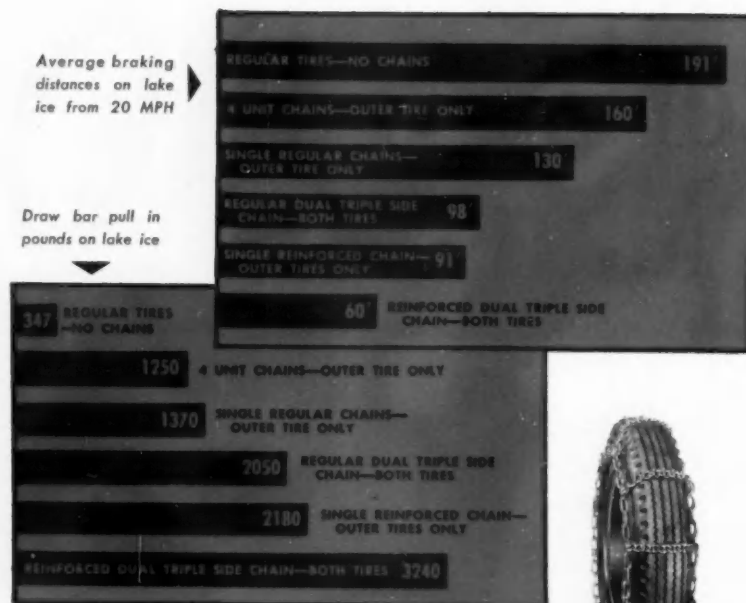


WEATHERHEAD THE ORIGINAL EQUIPMENT LINE

THE WEATHERHEAD CO., FORT WAYNE DIVISION
Dept. C-10, 128 West Washington Blvd., Fort Wayne, Indiana
In Canada: The Weatherhead Co., Ltd., St. Thomas, Ontario

TESTS SHOW

There is nothing on the market today which offers as much traction, better braking, and greater protection from skids than Reinforced Tire Chains. Look at the results, as recorded by the National Safety Council:



CAMPBELL TIRE CHAINS

A size and type for every service to help you protect your profits, your drivers and the public from the hazards of snow, slush and sleet! Campbell Truck and Bus Chains come in 3 grades: *Lug-Reinforced* for maximum traction and wear, *Mud-Service* for off-the-road, and *Highway Service* for general use.

Before the snow flies, get ready to keep your fleet on the road. Ask your jobber for complete information on Campbell Chains. If you prefer, write direct.

CAMPBELL CHAIN Company

Main Office: York, Pa.

West Burlington, Iowa • Portland, Oregon
Sacramento, California



Campbell Single Pneumatic



Campbell Dual Triple



Convenient, color-coded bags store easily... save handling time.

Fleet Course Calendar

HERE is an up-to-date calendar of fleet training courses for 1956. For complete addresses to write to for further information about the courses listed, see the Fleet Course Directory appearing in the November, 1955, issue, page 300.

Driver Training

North Carolina State College—One month long course beginning Oct. 29 and Nov. 26.

Effective Fleet Operation

Course begins on date given, meets once a week in the evening thereafter for about 10 weeks unless otherwise noted.

Tentatively scheduled for October—Purdue University (Ind.) (Hammond), University of South Carolina (Greenville), Oregon State College (Portland), Pennsylvania State University (Chester).

Tentatively scheduled for Fall—University of Illinois (Springfield).

Fleet Maintenance

University of Minnesota—Oct. 15-16.

Northeastern University (Mass.)—Oct. 15-19.

Fleet Supervisor

University of Minnesota—Oct. 15-19 (Minneapolis).

Heavy Equipment Operation

National School of Heavy Equipment Operation (P. O. Box 8243, Charlotte, N. C.)—One month long courses beginning Oct. 29 and Nov. 26. (For course description, see June, page 102.)

Selling Freight Service

Syracuse University (N.Y.)—Nov. 5-6.

Transportation Courses

Evening courses in (1) Transportation Practices, (2) Traffic Management, (3) Motor Carrier Operations, (4) Selling Transportation Service, (5) Freight Claims for Loss and Damage, (6) Current Transportation Problems, (7) Motor Carrier Terminal Operations begin the week of Jan. 28, 1957, Northeastern University, Boston, Mass.

Low speed fleets need

AUTO-LITE Special-Duty Contact Points

It's a fact that low-speed engine operation is tough on breaker points, because greater primary current flows in low-speed engine operation. This tends to oxidize distributor contact points.

Auto-Lite Special-Duty Contact Points are specifically designed and built to give better performance under the problem condition of low-speed operation. Auto-Lite Special-Duty high-quality tungsten points provide 78% more contact area than regular points, give top performance and longer point life for all "stop-and-idle" operations.

You'll find the answer to the fast, sure starting problem in your fleet with Auto-Lite *Special-Duty* Contact Points. They're best, because they're ignition-engineered especially for delivery trucks, taxis, buses, construction equipment, and other low-speed vehicles as well as over-the-road trucks operating under heavy loads.



AUTO-LITE

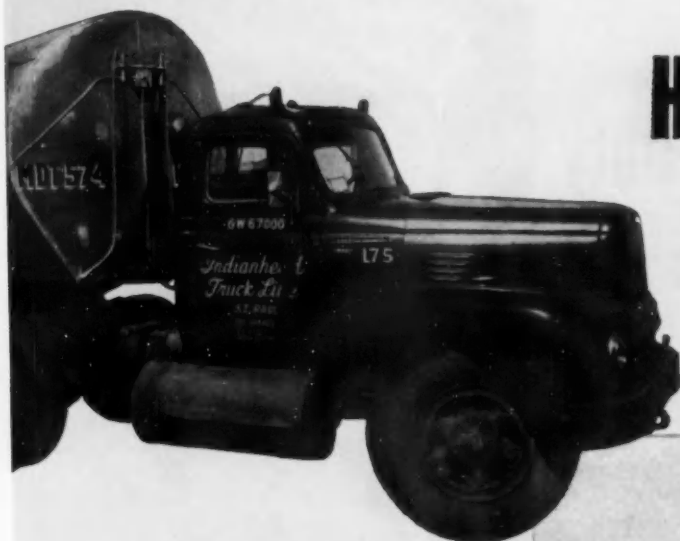
ORIGINAL SERVICE PARTS

Auto-Lite Original Service Parts are engineered for superior performance and specified by leading manufacturers as original factory equipment. They are available through better implement dealers, garages and gas stations everywhere.

THE ELECTRIC AUTO-LITE COMPANY
Service Parts Division Toledo 1, Ohio



Auto-Lite manufactures over 400 products, including Spark Plugs, Batteries, Wire and Cable, and Automotive Electrical Equipment...sold throughout the U.S. and Canada.



HEAVY DUTY SERVICE

demands

specialized

HEAVY DUTY PARTS



*rely on **THOMPSON** heavy duty parts*

Operators of heavy duty vehicles are demanding more miles of service, longer operating hours for greater earning power!

Thompson Heavy Duty Parts are giving this money-making extra duty service because of—**SPECIALIZATION!**

By working directly with vehicle manufacturers on specific vehicle problems, and by in-service study and testing directly with fleets, Thompson

engineers know their requirements. Then the T. P. research, development and manufacturing teams go to work.

Out of this specialization comes precision engineered parts that give the extraordinary service demanded by truck fleets and farm tractor operators—CL 77 bearings, Aerotype and Sodium-cooled valves, Rotocaps, Endurite valve seats—to name a few, from the complete engine and chassis line.

**ALWAYS INSIST ON
THE COMPLETE
LINE OF THOMPSON
SPECIALIZED H.D.
ENGINE AND
CHASSIS PARTS**



See your
**Thompson
Products Jobber**

THOMPSON SERVICE SALES

2209 Ashland Road, Cleveland 3, Ohio



A new kind of heavy-duty hauling

CHEVROLET POWERMATIC

cuts costs... boosts profits!



Here are four reasons why the new POWERMATIC transmission—exclusive in Chevrolet medium- and heavy-duty Task-Force trucks—makes hauling safer, more efficient, more profitable:

1 SAVES WORK — POWERMATIC's *automatic* gearshifting makes heavy-duty hauling far easier on hills, on the open road or in traffic. Expert truck operation is easy for even inexperienced drivers.

2 SAVES TIME — POWERMATIC means faster hauling because there is no speed loss between shifts. Also, the braking action of the integral hydraulic RETARDER allows faster downhill travel safely.

3 SAVES FUEL — POWERMATIC direct-drive highway cruising, with the torque converter locked up, saves engine revolutions, helps assure top fuel economy.

4 SAVES ON MAINTENANCE — Hydraulic RETARDER extends brake life tremendously, because it relieves the service brakes of continuous duty on long downgrades. Engine clutch maintenance costs are eliminated. Smooth oil-cushion operation of the torque converter protects drive-line parts from shock loads — lengthens life.

POWERMATIC is the first automatic transmission specifically designed for medium- and heavy-duty trucks. It brings to highway hauling the same moneysaving advantages demonstrated by Allison TORQMATIC DRIVES in mammoth off-highway vehicles used in the heaviest, most rugged service.

Your Chevrolet dealer is primed and ready to give you a demonstration. Let him show you how POWERMATIC will cut your costs and boost your profits.



Allison TORQMATIC DRIVES

ALLISON DIVISION OF GENERAL MOTORS, Indianapolis, Indiana



EATON

Zero-Lash[®]

VALVE LIFTERS



EATON

—SAGINAW DIVISION—
MANUFACTURING COMPANY
9771 FRENCH ROAD • DETROIT 13, MICHIGAN



PRODUCTS: Sodium Cooled, Poppet, and Free Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Rotor Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Heater-Defroster Units • Snap Rings • Springtites • Spring Washers • Cold Drawn Steel • Stampings • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers

What they do:

Eliminate lash maintenance for the life of the engine

Eliminate valve breakage and valve burning

Provide quiet valve train operation



How they do it:

Control valve seating; prevent valve pounding

Maintain zero valve clearance under all operating conditions

Provide accurate valve timing

Eaton Hydraulic Valve Lifters are custom-engineered in a wide range of materials which provide maximum durability. They pay for themselves many times over in reduced valve maintenance and uninterrupted service.

The Tougher ^{the} *Service*

The Better

HANSEN

HARDWARE for commercial bodies and industrial applications

PLUS VALUES always show up in Hansen Hardware—in easier application, longer service and lower upkeep cost. This means satisfactory performance and repeat business.

Among the products noted for their plus values are these:

112 Lock. Locks three doors as solidly as one door. Especially adapted for bodies with sliding doors.

103 three-point Lock. Locks doors at three points. Complete, including rods, lock and handle.

107 three-point Lock. Wide striker bolt at center is slightly beveled to insure tight, rattle-proof doors.

89 Triangle Regulator. Provides remote control. Especially adaptable to sliding doors.

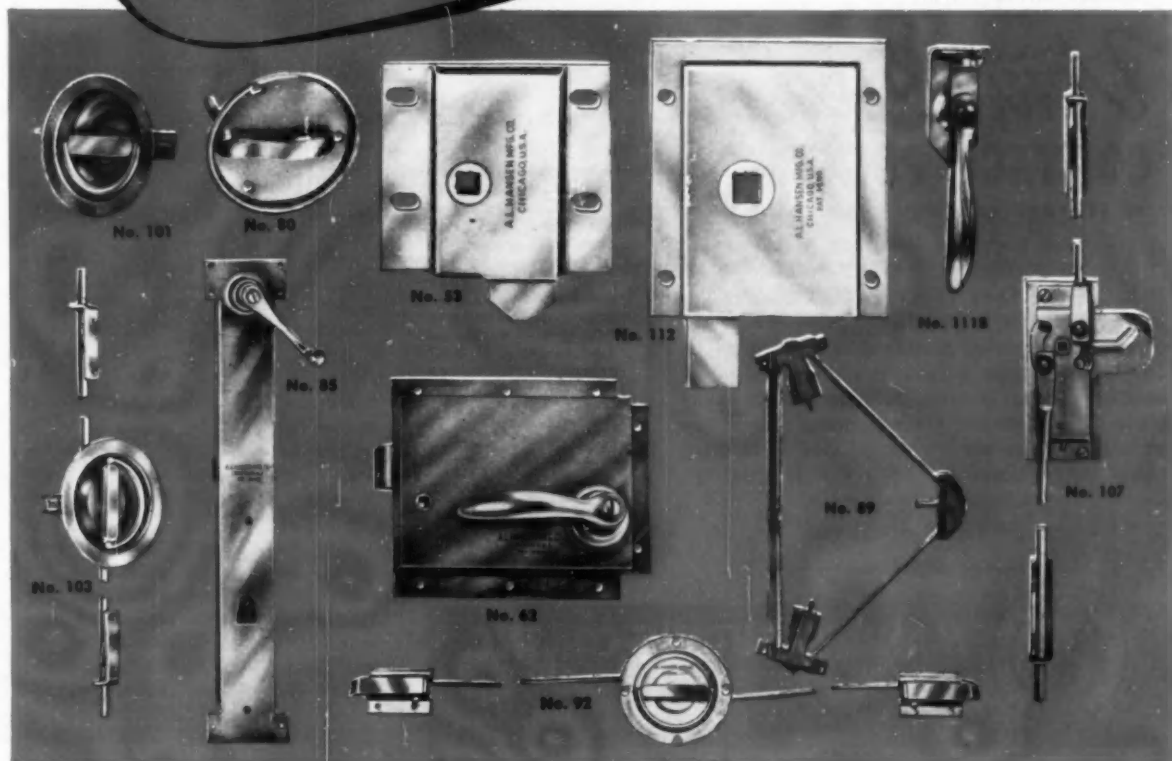
80, 101, 53, 62, 92 and 111-B—85 Window Regulator with straight-up lift—all have Plus Values.

Wherever service requirements are the most exacting—ratty roads, heavy loads, rough usage—you'll find Hansen. For "the Tougher the Service, the Better."

REQUEST
NEW
CATALOG

showing complete line
of Hansen Hardware.
Includes many new items.

A. L. HANSEN MFG. CO.
5047 RAVENSWOOD AVE.
CHICAGO 40, ILL.



Manufacturers' Literature

(See page 50 for Fleetman's Library)

Wire and cable catalog for all automotive ignition and electrical applications is available from Electric Auto-Lite Co., Toledo, Ohio. Circle L 2 on the postcard on page 52 for your free copy.

Trailer axle of 18,000-lb capacity with 17½x8, 16½x9 or 16½x10-in. brake size is described in a new folder

from Kay-Brunner Steel Products, Alhambra, Cal. Circle L 3 on the postcard for a free copy.

Directional signal lights made by Auto Lamp Mfg. Co., Chicago, are illustrated and described on a new 17x22 in. wall chart. For a free copy, circle L 4 on the postcard.

Insulation made by L.O.F. Glass Fibers Co., Toledo, Ohio, is covered in a new 4-page brochure on "Micro-lite." Circle L 5 on the postcard on page 52 for a free copy.

Electrical specialties for trucks, trailers and buses—including switches, connectors, fuse and terminal blocks, pilot and dash lamps, bus and other warning flashers, low air pressure alarms, voltage control kits, etc.—made by Cole-Hersee Co., Boston, Mass., are covered in a new 40-page catalog. For your free copy, circle L 6 on the postcard.

Garbage and refuse body that features direct hydraulic compaction is the subject of this new folder from Hercules-Galion Products, Inc., Galion, Ohio. To get a copy, circle L 7 on the postcard.

Electrical switches in heavy-duty, series-parallel design for 12- and 24-volt automotive use are featured in a new catalog sheet from Leece-Neve Co., Cleveland, Ohio. Circle L 8 on the postcard on page 52 for your free copy.

Compulsory insurance requirements in the state of New York are described in this folder from the state's Bureau of Motor Vehicles. To get a free copy, circle L 9 on the postcard.

Tandem-axle units for trucks and trailers made by Hendrickson Mfg. Co., Lyons, Ill., in its RT-Series are described in a bulletin you can get without charge by circling L-10 on the postcard.

Brake fluid regulations summarized on a state-by-state basis are available at \$3.50 per copy plus postage from Chemical Specialties Manufacturers Assn., 50 East 41st St., New York 17, N. Y. It is loose-leaf, will be revised periodically.

Soil-cement as applied to low-cost pavement for parking areas is covered in a new booklet from the Portland Cement Assn. For a free copy, circle L 11 on the postcard on page 52.

Automatic transmission rated for engine torque up to 325 lb ft is described in a new bulletin available from Clark Equipment Co. For your free copy, circle L 19 on the postcard.

Hose reels for fuel delivery, tank trucks, fire fighting equipment, LP gas use and shop applications are highlighted in a new catalog just published by Clifford B. Hannay & Son, Inc., Westerlo, N. Y. For a free copy, circle L 20 on the postcard on page 52.

END

Please Resume Reading Page 52

COMMERCIAL CAR JOURNAL, October, 1956



Announces

THE MOST ADVANCED DESIGNS IN CONTACT SETS



HEAVY DUTY

Ventilated

CONTACT POINTS

TO FIT FORD • MERCURY • LINCOLN

P & D Heavy Duty VENTILATED Contact Sets will give smoother and better engine performance over a longer period of time than any other type set. Better contact surface is obtained and the transfer of metal deposits from one contact to the other is eliminated. Under normal conditions these P & D Contact Sets should give up to three times longer service. That's P & D Quality!



Always install a new P & D Condenser with P & D Contacts. P & D has a complete line of matched Contact Sets (Pre-assembled for fast and accurate installation) and Condensers to fit the ignition systems of all cars and trucks. P & D means Performance and Dependability!



See Your P & D Catalog



MANUFACTURING CO., INC.

Established 1920
19-02 Steinway St., Long Island City 5, N.Y.

Export Sales: Borg Warner International, 36 So. Wabash Ave., Chicago 3, Ill.



St. Paul's Moore Motor Freight Lines, Inc., founded in 1908 and the first trucking company to have a motor truck, is guided by its President, Mr. Sam Santarsiero.

"Since 1948, **KRAFT** has held our tire costs to a minimum!"



Prior to 1948, Moore Motor Freight Lines, Inc., with 273 units rolling up more than 5-million miles annually, found recapping a costly process. Then, KRAFT System Recapping stepped into the picture.

"Since then," says Mr. Santarsiero, "our tire costs have been steadily reduced and driver delays minimized resulting in better service to our customers."

Featuring guaranteed service coast to coast, KRAFT System Recapping is a business-like, quality controlled operation that provides extra profits by getting the last payload penny from your tires.

Call your General Tire distributor today for up-to-the-minute details on every tire and recapping need.

Kraft's 4-Big Advantages

- ✓ Extra long mileage, top-quality materials
- ✓ Factory-approved equipment
- ✓ Factory-trained recappers
- ✓ Guaranteed service Coast-to-Coast



KRAFT SYSTEM RECAPPING IS AUTHORIZED ONLY BY THE GENERAL TIRE & RUBBER COMPANY



**Quicker Starting,
Better Performing**

KILGORE

Flares
Provide

**SAFETY, LIGHT, CONVENIENCE
for Highway
Night-Time Emergencies**

A pitch-black night . . . a heavily-traveled highway . . . a stalled, unlighted truck . . . a rapidly approaching car . . . all stage props for a serious, costly accident. But, with Kilgore Flares placed ahead, alongside and behind the truck, the oncoming motorist is aware of lurking danger.

Kilgore Automotive and Truck Flares perform in all kinds of weather. Faster starting . . . candle power substantially exceeds minimum requirements . . . convenient, sturdy wire stand or spike . . . plastic plug for greater rigidity. Equip your fleet with Kilgore Automotive and Truck Flares. See your Kilgore dealer.

Kilgore, INC.

INTERNATIONAL FLARE SIGNAL DIVISION
WESTERVILLE, OHIO

New Products

Continued from Page 60

P30. Wheel Block

Calumet Steel Castings Corp., Hammond, Ind., announces a heavy duty wheel block, which may be equipped with a sign post to show whether the



block is in place during lift truck operations at the loading dock. Block is a one-piece casting of alloy steel with angular pointed calks to eliminate slippage, and is designed with rounded sections to prevent damage to equipment. The sign feature is not an integral part of the wheel block.

P31. Truck Tire

Goodyear Tire & Rubber Co., Akron, Ohio, announces a new five-rib truck tire in the low-price range. Called the "Rib Hi Miler," it is an all-new tire with a tread design similar to the "Traction Hi Miler." It is a rayon cord tire with new-type breakers.

P32. Mobile Radio

Radio Corp. of America, New York City, has available three high-power, low-band (25-54 mg) mobile FM radio systems, including two-way radio equipment engineered for a power output of 100 watts. New systems include the CMF-100B Series, for 100-watt power output; the CMF-55 Series, for 55-watt output; and the CMF-40 Series, for 40-watt output. Principal design feature of the new

(TURN TO PAGE 200, PLEASE)

THERE'S NO SUBSTITUTE for LUBER-FINER'S ENGINEERED PROTECTION



**YES! IT'S WHAT'S
INSIDE
THAT COUNTS**
The Efficiency of
Luber-finer's Exclusive
Patented Process
**HAS NEVER
BEEN EQUALLED!**

USE ONLY GENUINE

Luber-finer
DIESELPAKS



Only a Luber-finer Unit
Plus a Genuine Luber-
finer Pack can give the
Exclusive Patented Fil-
tering Process that has
made Luber-finer The
Standard of The Indus-
try Since 1936!!



**THERE'S A LUBER-FINER MODEL
FOR EVERY TYPE OF ENGINE—
EVERY TYPE OF OIL!!**

**LUBER-FINER PACKS
AVAILABLE**

1. REFINING PACK

Introduced to the public in 1935 for use with straight mineral oils, fuel oils, hydraulic oils, and inhibited industrial oils.

2. DIESELPACK

First made available in 1941, the DIESELPACK was primarily designed for use with H.D. detergent compounded oils and has also achieved outstanding results when used with fuel oils and straight mineral oils.

**DON'T BE MISLED
BY PRICE ALONE!**

There is no substitute for DIESELPACK'S Patented Filtering Process for H.D. Compounded oils AT ANY PRICE!

The DIESELPACK cleans more oil faster—keeps it CLEAN longer—and gives more service and better engineered protection than ANY of the substitute filtering elements being offered for Luber-finer units.

IT PAYS TO GET THE BEST!

**STANDARD OF THE INDUSTRY
SINCE 1936**

Luber-finer Units are Standard and Optional Equipment on America's Leading Diesel Trucks, Tractors, Stationary Engines.

Write for Complete Information to Dept. 11

LUBER-FINER, INC.
2514 S. Grand Ave., Los Angeles 7

NEW!

THOR AIR AUTOMOTIVE IMPACT WRENCH

\$127⁵⁰

EASY PAYMENT
PLAN

MODEL G2W
(Actual Size—
Only 6½" long!)

CONTROLLED TORQUE!

Most Powerful ½" Square Drive Impact Wrench on the Market!

- ★ Completely new impact mechanism—only **FOUR MOVING PARTS!**
- ★ Finger-tip push-button reverse for easy one-hand operation.

Thor

PORTABLE POWER

TOOLS

Equipped with speed and torque regulator. Popular accessories and attachments available. Other Thor Automotive Air Impact Wrenches available up to 1¼" bolt capacity. Ask your Thor Automotive jobber for a demonstration. Thor Power Tool Co.

SOLD ON EASY PAYMENT PLAN

THOR POWER TOOL COMPANY, Aurora, Ill.

Branches in all principal cities

If you're particular about oil mileage...



be particular about your oil...



USE WOLF'S HEAD

You get more trouble-free miles on the road . . . less expensive down-time in the garage when you rely on WOLF'S HEAD Oil to safeguard your engines. Richer, tougher, longer-lasting WOLF'S HEAD provides the most dependable "all-around" protection money can buy, for it is the super refinement of Pennsylvania crude . . . nature's finest, most expensive crude oil. WOLF'S HEAD won't thin out, thicken or break

down . . . cleans as it lubricates . . . protects against sludge, rusting and corrosive acids . . . prevents unnecessary wear.

For vehicles in extreme heavy duty service, WOLF'S HEAD Heavy Duty Oil provides a strong, tough film and excellent detergency . . . assures you the lowest operating cost per mile while it gives engines the complete protection of *superior* lubrication.

Ask about the free WOLF'S HEAD Laboratory Control Plan. It helps prolong engine life; reduces down-time for every unit in the fleet.



Free!

"RULES OF THE ROAD" Folder contains complete driving information, traffic rules, speed laws for all states. Give them to your drivers.

WOLF'S HEAD OIL REFINING CO., Inc.
OIL CITY, PA.
New York Office: Glendale 27, N. Y.

100% PURE PENNSYLVANIA

WOLF'S HEAD MOTOR OIL AND LUBES

100% Pure Pennsylvania — Scientifically Fortified



Member, Penna. Grade Crude Oil Association

- ★ Longer Lasting
- ★ Superior Protection
- ★ Keeps Engines Clean
- ★ Keeps Power High

\$1088⁰⁰

INCREASED REVENUE PER UNIT ANNUALLY



with Weight-Saving

Firestone ONE-PIECE RIMS and TUBELESS TRUCK TIRES

Above Figures Based on Increased Payload of 378 Lbs. Per Trip.
Weight-Savings Vary with Tire Size . . . To See How Much Weight You Will
Save, See Your Firestone Rim Distributor or Firestone Tire Dealer . . . then

Use this Formula. . . .

FIGURE YOUR OWN INCREASE IN REVENUE



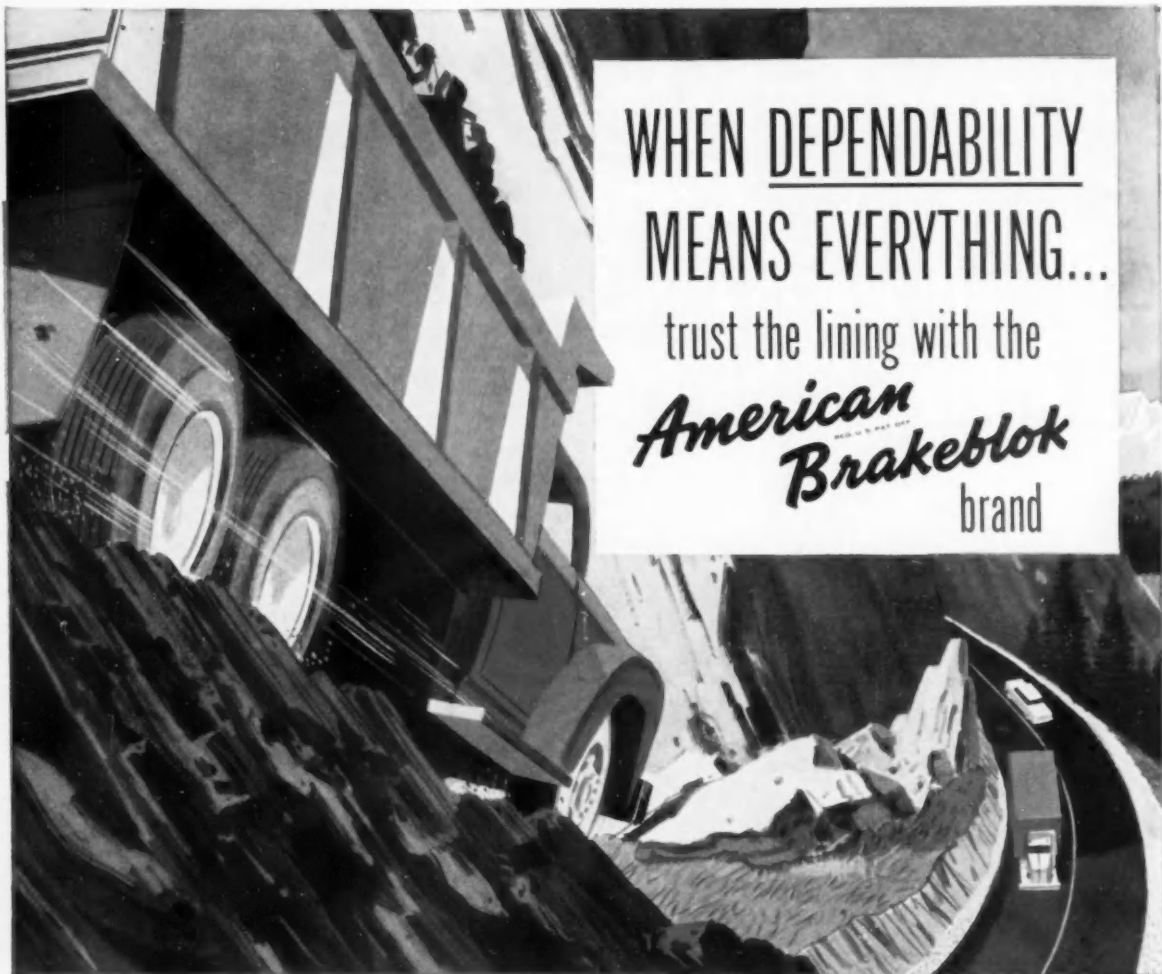
$$\text{Increase In Payload} \times \text{Annual Mileage} \times \text{Commodity Rate} = \text{Increase In Revenue}$$

Remember there's NO WOBBLE with Firestone Tubeless Truck Tire
Rims They Run True because They're Built True!

For Further Information
Call or Write . . .

FIRESTONE STEEL PRODUCTS CO.

AKRON,
OHIO



WHEN DEPENDABILITY MEANS EVERYTHING...

trust the lining with the
American
Brakeblok
brand

Look for
the brand



Brakes aren't very important . . . until you need them. Then every part from the foot pedal to the brake lining suddenly becomes worth the life of the driver, his rig, and his load. That's why so many truck owners and fleet operators agree that it doesn't pay to quibble over quality. They use the best . . . and that is American Brakeblok heavy-duty lining. In addition to safety, they get the bonus values of longer service, fewer adjustments, and less downtime. For prompt service, call your nearby N. A. P. A. jobber, or write us direct.

... Insist on American Brakeblok
Heavy-Duty Lining

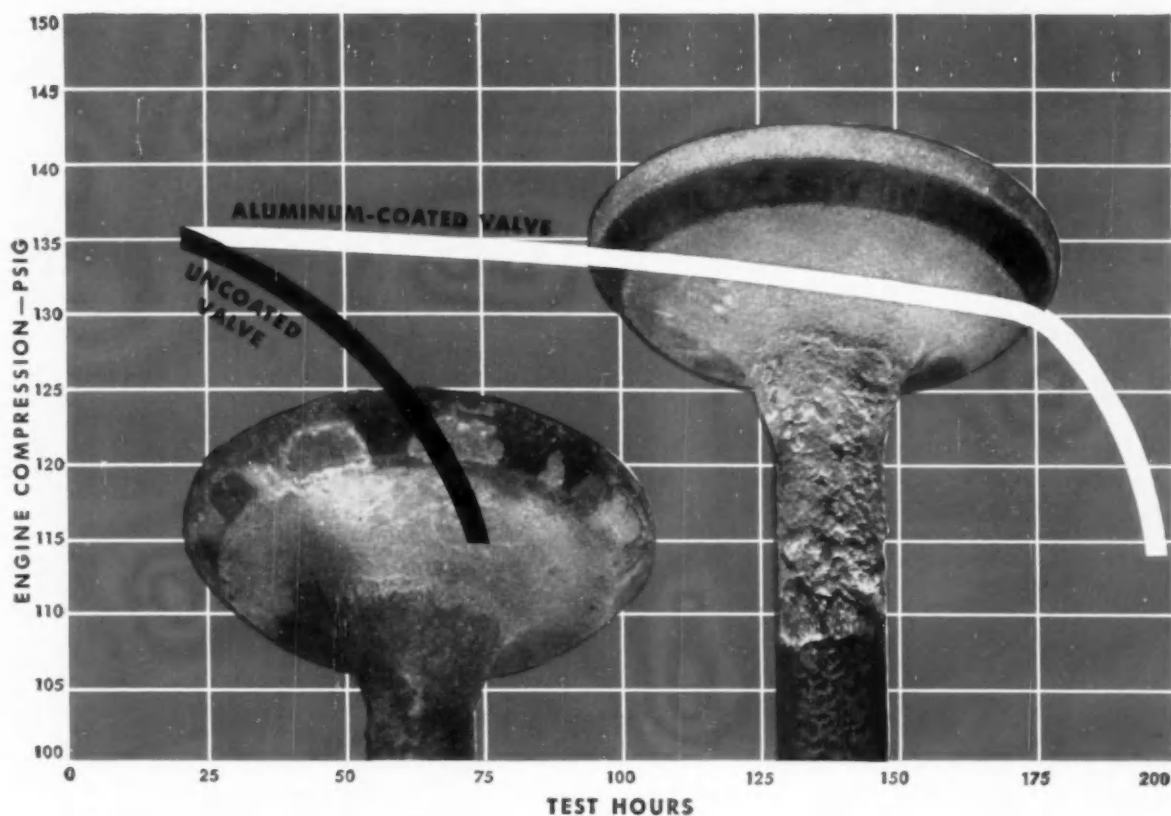
Brake Shoe

AMERICAN BRAKEBLOK DIVISION EXECUTIVE OFFICES, Detroit 9, Mich.
Plants in Winchester, Va. • Cleveland, Ohio • Hillburn, N. Y. • Lindsay, Ont. • Gif, France



186% longer life

with Thompson Aluminum-Coated Valves



Here's a long-lasting remedy for reduced valve life caused by corrosion...the Thompson method of coating exhaust and intake valves with aluminum.

Tests show that Thompson aluminum-coated valves last up to 186% longer than uncoated valves under identical conditions.

The Thompson process of applying alu-

minum to the valve assures penetration of the steel by the corrosion-resistant aluminum. This provides protection of the valve face from erosion by hot gases and corrosive agents from combustion.

Thompson sales engineers are prepared to discuss aluminum coating of exhaust and intake valves for your engines. Write today for information and engineering data.



Valve Division Thompson Products, Inc.

1455 EAST 185th ST. • CLEVELAND 10, OHIO

**FOR
OUTSTANDING
PERFORMANCE**

MONMOUTH* MICRO*



MONMOUTH CLEVITE* 77

• Whatever the job in your shop, you're a triple winner with Monmouth bearings. Specifically: multiple-checked precision . . . unequalled performance . . . and, throughout the complete line, the most advanced bearing engineering known today. Available from N.A.P.A. jobbers coast to coast.

*The words Monmouth, Clevite and Micro are registered trade marks of Clevite Corporation.

Monmouth

TRADE MARK

ENGINE BEARINGS

Clevite Service
The Cleveland Graphite Bronze Co.
Division of Clevite Corporation, Cleveland, Ohio, U. S. A.



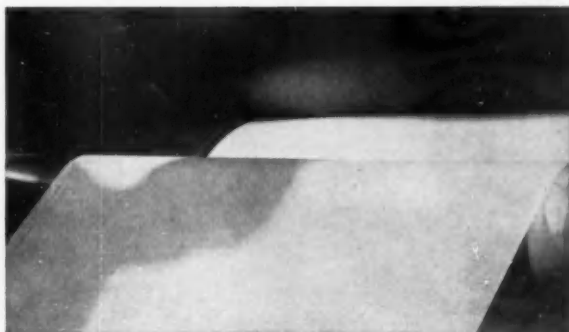
*Your
NAPA Jobber
is a Good Man
to Know!*



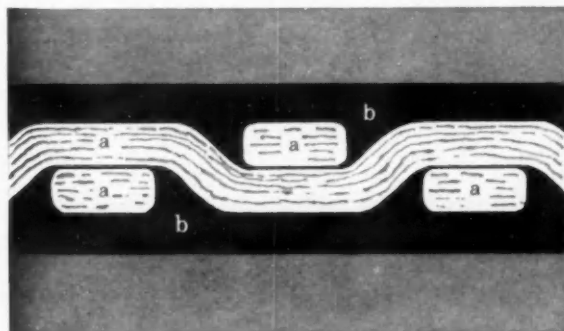
Du Pont combines rugged nylon with durable neoprene



STRONG NYLON, specially woven to produce a thin, flat, basket-weave fabric, is the core of Du Pont's construction of "Fairprene." "Fairprene" won't rot, mildew or shrink, even when stored wet.



DU PONT'S special process includes calendering or coating a durable neoprene to the nylon fabric core. This process thoroughly bonds the neoprene to the nylon.



CROSS SECTION shows construction of "Fairprene": (a) Nylon core is thoroughly coated on both sides and bonded to the neoprene. (b) Neoprene coating resists peeling, flex cracking, and weathering.



RESULTING TARPS of Du Pont "Fairprene" are lightweight, strong and waterproof. Their smooth finish lets them slide on or off the load without snagging. They are easily handled by one man.

Result: Light, Strong, Smooth, Waterproof Tarps of Du Pont FAIRPRENE®

An exclusive Du Pont process combines the strength of nylon with the rugged durability of neoprene. The resulting lightweight, but strong, tarps of "Fairprene"® are waterproof and weather-resistant—unaffected by grease, oils and most chemicals. They won't rot, mildew or shrink—stay pliable and strong in freezing or steaming weather. Because of

Du Pont's exclusive process, the neoprene coating resists peeling, flex cracking and abrasion.

Being lighter, tarps of "Fairprene" save money, because they're easier to handle. One man can handle them, and they reduce your dead-weight load. Tarps of "Fairprene" can be repaired right on the job—no special equipment needed.

"Fairprene" is made in various weights for light, medium or heavy-duty service. If you use tarpaulins for any purpose, why not find out about tarps of "Fairprene"? Mail the coupon today for free bulletin with sample swatches. Du Pont manufactures only the coated fabric. The tarpaulins can be made by your usual source.

DU PONT INDUSTRIAL COATED FABRICS

E. I. du Pont de Nemours & Company (Inc.)
Fairfield, Conn.



BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

COMMERCIAL CAR JOURNAL, October, 1956

*"Fairprene" is Du Pont's registered trademark for coated fabrics, sheet stocks and cements.

E. I. du Pont de Nemours & Co. (Inc.)
Fabrics Division—CC-610, Wilmington 98, Delaware

Please send me your bulletin on "Fairprene" for
tarpaulins and swatches of material available.

Name _____ Position _____

Company _____

Address _____

City _____ State _____

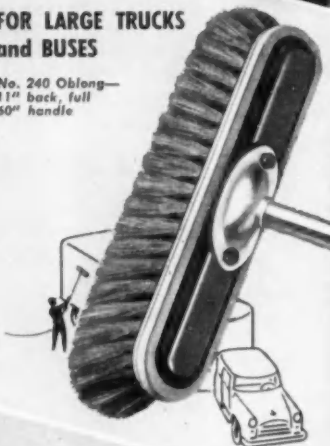
There's a

SPEED WASH FOUNTAIN BRUSH

to fit every
washing need

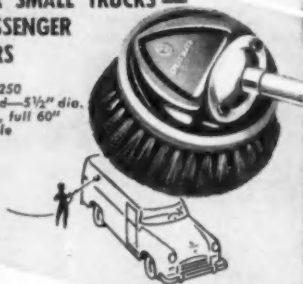
FOR LARGE TRUCKS and BUSES

No. 240 Oblong—
11" back, full
60" handle



FOR SMALL TRUCKS— PASSENGER CARS

No. 250
Round—5½" dia.
back, full 60"
handle



\$12.45 ea.
Either Style

More trucks, buses, trains are washed with Speed Wash Fountain Brushes than any other. And no wonder! Look at these features — soft, resilient bristles (50% nylon — 50% horsehair) can't mat, tangle; exclusive perma-set fastened tufts cannot come out; steel back is surrounded by mar-proof rubber bumper. Built to outlast ordinary brushes, Speed Wash is fully guaranteed. Order yours today!

MILWAUKEE DUSTLESS BRUSH CO.

530 North 22nd St., Milwaukee, Wis.

Please ship the following:

Quan. No.	Item
	240 OBLONG SPEEDWASH
	250 ROUND SPEEDWASH

NAME
ADDRESS
CITY STATE

New Products

Continued from Page 192

systems is sectionalized chassis design. Radio transmitter, receiver, and power supply are designed as separate independent units, assembled in a single case. The separation of com-



ponents facilitates maintenance and permits quick replacement. Standardized case size, cables, and accessories permit direct interchangeability of the three highpower systems.

P33. Wheel Weights

Snugl Wheel Weight Mfg. Co., Kokomo, Ind., has wheel balancing weights in 4, 6, 8 and 12 oz sizes to fit truck wheels with 20-in. rolled rims. Basic change to fit rolled rims appears in the clip. The clip remains slotted for easy removal with Snugl removal tool.

P34. Tractor Shovel

The Frank G. Hough Co., Libertyville, Ill., has announced two new 4-wheel-drive, pneumatic-tired "Pay-



loader" tractor-shovels. These are the Model No. HH with a payload capacity of 1½ cu yd (1½ cu yd struck) and the Model No. HU with a payload capacity of 1½ cu yd (1 cu yd struck).

P35. Hydraulic Brake Lock

Autostop, Inc., Mankato, Minn., is making a hydraulic brake lock for trucks and cars which will be marketed under the trade name "Autostop." It mounts directly on the shift lever and applies "touch button" holding power without interference to the vehicle's braking system.

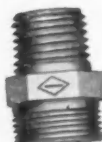
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Please Resume Reading Page 66

The Tube Coupling with the Vibration and Shock Absorbing Sleeve.

IMPERIAL FLEX FITTINGS

Ideal for trucks and fleets
because they stand up under



MAJOR VIBRATION
SHOCK
MINOR TUBE
MOVEMENT



This Synthetic Elastic Sleeve Absorbs Vibration and Shock . . . assures a positive pressure-tight seal...stands up under the most severe operating conditions.



THE IMPERIAL BRASS MFG. CO.
1209 W. Harrison St., Chicago 7, Ill.

IMPERIAL

There are now
120
Water Pumps
in
our line
Wohler
Corporation
LANSING 5 MICHIGAN

MOTOR TRUCKS
CRANE CARRIERS
CUSTOM BUILT CHASSIS
GENERATOR SETS

WARNER & SWASEY CO.

DUPLEX

DIVISION
LANSING, MICHIGAN



SOME COLD FACTS ABOUT WARM AIR...

and how it affects your trucking operation

When the mercury plunges, all hauling becomes more hazardous. That's when warm air in the cab can make it safer for your driver and your cargo.

In truck cabs equipped with an Evans Heater, it's a proven fact that:

- There is a continuous stream of *fresh*, pleasantly warmed air.
- The windshield stays clear, visibility excellent, regardless of snow or sleet.
- The driver remains alert, not "drugged" with the effect of recirculated air.
- The probability of accident, therefore, is greatly reduced.

Evans Truck Heaters are built for trucks, not passenger cars. Each one is centered around a heavy-duty, around-the-clock-service motor; an exclusive one-piece, die-cast fan developed in Evans' laboratory; a rugged fin and tube-type core . . . all merged into a long-lived unit that delivers high performance with low maintenance.

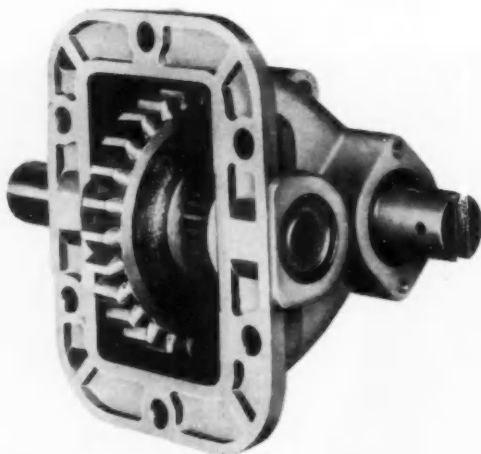
There's an Evans Heater for every commercial vehicle in use today. If you want the best "heat insurance" you can buy for your trucks, write for full information to Evans Products Company, Dept. Q-10, Plymouth, Michigan.

Regional Representatives: Cleveland, Frank A. Chase . . . Chicago, R. A. Lennox Co., Inc. . . . Detroit, Chas. F. Murray Sales Co. . . . Allentown, Pa., P. R. Weidner



EVANS TRUCK AND BUS HEATERS AND VENTILATING SYSTEMS

EVANS PRODUCTS COMPANY also produces: railroad loading equipment; bicycles and velocipedes; Evaneer fir plywood; Evanite battery separators and Evanite hardboard.



series 22 tulsas power take-off

A shining example of Tulsa Winch engineering and manufacturing skill is the new single speed, medium duty Tulsa Power Take-Off. Check these advantages:

Lightweight, die-cast aluminum housing . . . output shaft rotates on two needle bearings

. . . cable or lever control . . . three output shaft sizes available. This new

"Series 22" Tulsa Power Take-Off is the newest addition to the complete Tulsa line

— highest quality,
nationwide distribution and
service.

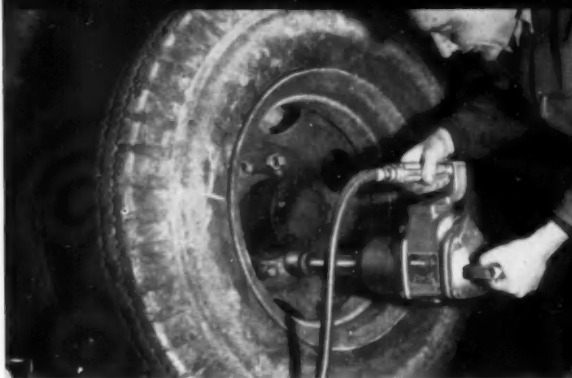
in the

spotlight



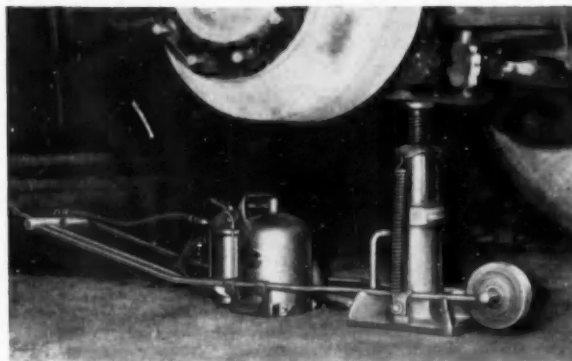
BACK OF FAST FLEET SERVICE

you'll find CP AIR Tools!



CP-790 Controllable Power Air Impact Wrench (1" square drive) has VARI-TORK impact clutch. Ideal for precise, speedy heavy-duty work on Wheel Nuts... Spring U-Bolts... Torsion Bar Springs... Axle Space Bars.

CP Air-Wrenches, Pneu-draulic Truck Jacks and Zip-Guns not only save hours of hand work — they do a far better job. And they keep 'em rolling... trucks and buses spend less time in the shop, more time on the road. For details on the CP tools that will speed up your own service jobs, phone your jobber or mail the coupon now to **Chicago Pneumatic Tool Company, 8 East 44th Street, New York 17, N. Y.**



Speedy 20-Ton CP Air-Powered Hydraulic Truck Jack is quickly spotted any place in the shop. Its pneu-draulic pump will also power single-acting hydraulic cylinders, presses and rams.



CP Zip-Gun — the most versatile tool in a body and repair shop. Cuts... Rips... Shears... Scrapes... Punches... Bumps... Drives.



Chicago Pneumatic

AIR AND ELECTRIC IMPACT WRENCHES • PNEU-DRAULIC
TRUCK JACKS AND PUMPS • ZIP-GUNS • BEAD BREAKERS

Chicago Pneumatic Tool Company, Dept. A-19
8 East 44th Street, New York 17, N. Y.

Send me FREE descriptive catalog. Please arrange demonstration of:

☐ CP Pneu-draulic Jack ☐ CP Zip-Gun ☐ CP Air-Wrench

Name _____ Title _____

Company _____

City _____ Zone _____ State _____

WHAT DO TRUCKERS WANT MOST?



FLEET OPERATOR: "Our trucks must be on the job **earning**; not in the shop **costing**."



MAINTENANCE MAN: "My job is to hold truck operating and maintenance costs down to rock-bottom."

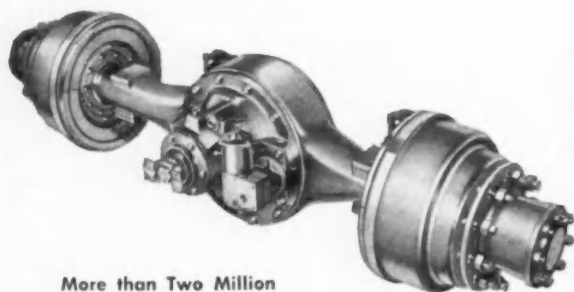


FARMER: "Quick trips with full loads often make the difference between profit and loss on a whole crop."



CONTRACTOR: "We need power for tough off-highway work; and speed to go on the open road."

EATON 2-SPEED AXLES SATISFY THEM ALL!



More than Two Million
Eaton Axles in Trucks Today.
For complete information,
see your truck dealer.



DRIVER: "Every driver wants simple shifting, which means an easier-handling rig."



DEALER: "Higher resale values permit higher trade-in allowance — that makes satisfied customers."

Operators, drivers, maintenance men, dealers—just about everyone connected with any phase of motor truck operation agrees that Eaton 2-Speed Axles pay for themselves many times over. By providing the right gear ratio for every operating condition, Eaton 2-Speeds make trucks easier and safer to drive, reduce operating and maintenance costs, add thousands of miles of trouble-free life, and make them worth more on the trade-in.

EATON

AXLE DIVISION
MANUFACTURING COMPANY
CLEVELAND, OHIO



PRODUCTS: Engine Valves • Tappets • Hydraulic Valve Lifters • Valve Seat Inserts • Jet Engine Parts • Hydraulic Pumps • Motor Truck Axles • Permanent Mold Gray Iron Castings • Forgings • Heater-Defroster Units • Automotive Air Conditioning • Fastening Devices • Cold Drawn Steel • Stampings • Gears • Leaf and Coil Springs • Dynamatic Drives, Brakes, Dynamometers



You Just Can't Beat STEEL

BE PREPARED . . .

CARRY A SET IN EVERY TRUCK

• When rubber slips . . . steel grips. Tests prove WEED V-BARS best on ice or snow. They stop you shorter, straighter, safer . . . provide the traction that keeps you rolling all winter long.

WEED V-BARS last longer . . . give you more traction you can trust for every dollar you invest.

*for safety, performance, economy . . .
insist on*

WEED V-BAR TIRE CHAINS

In Business for Your Safety

ACCO



**AMERICAN CHAIN DIVISION
AMERICAN CHAIN & CABLE**

York, Pa., Boston, Chicago, Denver, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, Bridgeport, Conn.

**WEED
TIRE CHAINS**

White trucks roll on
Dayton spoke-type,
 cast steel wheels.



The White Motor Company equip their trucks with DAYTON Wheels because Dayton Wheels are stronger for greatest dependability . . . light-weight to provide greater payload . . . cooler running, because of the fanning action of spokes, for longer tire and brake life . . . and because they meet all requirements of standard or tubeless tires.

specify dayton spoke-type, cast steel wheels



cast steel wheels
brake drums



fifth wheels
landing gears



THE DAYTON STEEL FOUNDRY CO.

dayton 7, ohio

serving the motor transportation industry over 50 years!

8,000,000 miles of service prove Gates "T" Belts cost less per mile



The Gates Rubber Co.
Denver, Colorado

Dear Sirs:

A year ago we switched over 100% to Gates "T" Belts. In that time, we have noted that they cost less per mile and wear far longer than other belts we have used in the past. This means, of course, that our road delays due to belt failure are practically eliminated.

Yours truly, *James Aiello*

James Aiello,
Fleet Supervisor



...wear longer...cut road delays

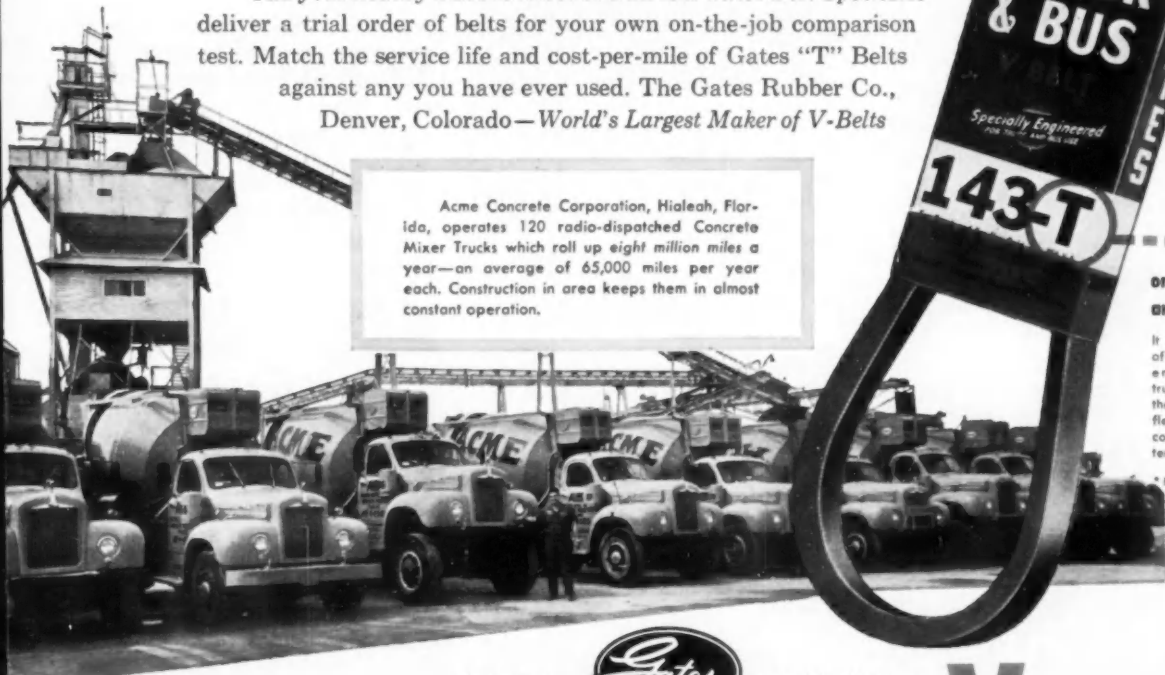
Construction firms depend on concrete companies like Acme, for deliveries spaced and timed for continuous concrete pours. Delays can result in "cold pours" and faulty construction.

Like Acme, fleet operators all across the country choose Gates "T" Belts to cut costs and to eliminate road delays due to belt failure.

make this test

Call your nearby Gates Jobber and have a Gates Belt Specialist deliver a trial order of belts for your own on-the-job comparison test. Match the service life and cost-per-mile of Gates "T" Belts against any you have ever used. The Gates Rubber Co., Denver, Colorado—World's Largest Maker of V-Belts

Acme Concrete Corporation, Hialeah, Florida, operates 120 radio-dispatched Concrete Mixer Trucks which roll up eight million miles a year—an average of 65,000 miles per year each. Construction in area keeps them in almost constant operation.



Look
for this

"T" *

on both the belt
and the label

It is your assurance of the belt specially engineered for trucks and buses—the belt with a tough flexible cover and cords of extra high tensile strength.

* REG. U.S. PAT. OFFICE
TPA 119

The Mark of



Specialized Research

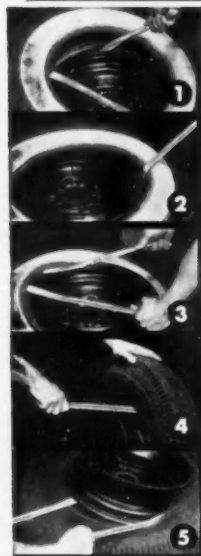
GATES TRUCK & BUS V-BELTS

Change **TUBELESS** Tires
EASIER and FASTER!

KEN T-6 TOOLS

KEN quality job-designed

T-6 USED IN PAIRS



PASSENGER CARS LIGHT TRUCKS

Used and recommended by leading tire makers. Used in pairs. Won't damage tubeless sealing features. Length: 18".

1. Mounting first bead
2. Mounting second bead
3. Demounting first bead
4. Demounting second bead
5. Final demounting operation

SEE YOUR JOBBER

SAVE LABOR, TIME AND MONEY.
INSIST ON KEN TOOLS. Finest Quality and Design.

The KEN-TOOL Mfg. Co.
AKRON 5, OHIO

KINNEAR STEEL Rolling Doors

They save space; open straight upward. Surrounding space is always fully usable. All metal protection against fire, wind, theft. Any size, for trucks or buildings. Write.



KINNEAR
ROLLING DOORS
Saving Ways in Doorways

The KINNEAR
Manufacturing Co.
2100-26 Fields Ave.
Columbus 16, Ohio

**COVER 70% OF ALL
MAKES OF TRUCKS
AND BUSES ARE
ZOLLNER EQUIPPED**

ZOLLNER

HEAVY DUTY PISTONS

ZOLLNER MACHINE WORKS PORT HARTNELL, ILL.

October News Roundup

Continued from Page 88

1956 Truck Trailer Shipments

	July	7 Months
Vans:		
Insulated and refrigerated.....	410	3,470
Steel.....	137	750
Aluminum.....	273	2,720
Furniture.....	173	1,364
Steel.....	173	1,364
Aluminum.....		
All other closed-top.....	1,856	16,357
Steel.....	851	7,003
Aluminum.....	1,005	9,354
Open-top.....	328	2,200
Steel.....	142	921
Aluminum.....	183	1,279
Total—Vans.....	2,764	23,391
Tanks:		
Petroleum.....	421	3,059
All other.....	60	653
Total—Tanks.....	481	3,712
Pole, pipe and logging:		
Single Axle.....	48	388
Tandem Axle.....	127	984
Total.....	175	1,372
Platforms:		
Racks, livestock, stake.....	98	495
Grain bodies.....	96	476
Flats, all types.....	619	5,475
Total—Platforms.....	815	6,446
Low-bed heavy haulers.....	201	1,998
Dump trailers.....	134	1,138
All other trailers.....	182	1,770
Total—Complete Trailers.....	4,722	39,827
Chassis.....	262	2,237
Total—Trailers and Chassis.....	4,984	42,064

Source: Industry Division, Bureau of the Census.

AMONG THE STATES

Connecticut—Ordinance passed by the city of Stamford provides for impounding and sale or other disposition of personal property left on streets and public places.

Massachusetts—New law provides for taxation of special motor fuels and taxation of all motor fuels acquired outside the state in certain instances (\$725). A special commission is investigating safety equipment on vehicles, elimination of noxious fumes (H3053).

Missouri—State says after first of this month New York resident-owned vehicles (of a size subject to New York's mileage tax) will be denied reciprocal registration exemptions by Missouri.

New York—In answer to the above (TURN TO PAGE 214, PLEASE)

LOWER YOUR COST PER MILE!

Install



The only heavy duty truck and bus mufflers that fit your engines . . . not just exhaust pipes to give you peak power . . . quietly. Write for details on many other benefits.

ALEXANDER-TAGG INDUSTRIES, INC.
HATBORO, PA. Dept. CCJ OSborn 5-7260

for greatest
overall economy

**WAUKESHA
ENGINES**

DIESEL • GASOLINE
NATURAL GAS • LP GAS

CEMCO

INDUSTRIES, INC.
GALION, OHIO

A name that has meaning in the
trucking industry

Manufacturers of: Trailer Jockeys, Fifth Wheel Cranes, Split-Shaft Power Take-offs, Hydraulic Dock Ramps, Mobile Machine Shops, Mobile Lubricating Units, Mobile Trailer-Weigh, Bulk Material Carriers.

W. G. B. makes OIL FILTERS

from
60 to 750 Cu. In.
Capacity

...and Cartridges for
all makes of Filters.



Write for Details

W. G. B. OIL CLARIFIER, INC.
First By Test Since 1931 KINGSTON, N. Y.

**FRINK
SNO-PLOWS**

Both "V" TYPE and
ONE WAY BLADE TYPE

hand or power hydraulic control
FOR ALL MOTOR TRUCKS
FROM 1½ to 10 TONS

FRINK SNO-PLOWS, INC., CLAYTON, 1000 Isl., N. Y.
FRINK SNO-PLOWS OF CAN. Ltd., TORONTO, ONT.

*"Our Buses operate more than One Million Miles
a year with no sludge problem - thanks
to Phillips 66 Heavy Duty Motor Oil!"*

Ira Vandenakker, Shop Superintendent, Ogden Bus Lines, Ogden, Utah



● With 212,000 customers per month and with buses traveling over 1 million miles a year, efficient performance is a must with Ogden Bus Lines. That's why this bus company chooses Phillips 66 products.

Ogden Bus Lines use Phillips 66 Gasoline, Diesel Fuel, Gear Oils and Greases, in addition to Phillips 66 Heavy Duty Motor Oil.

Mr. Yeaman, co-owner, said: "We have

used Phillips 66 Heavy Duty Motor Oil for several years and find that our motors are always very clean. We are never bothered with the low speed sludge problem that usually occurs under our operating conditions."


Take a tip from Ogden Bus Lines. No matter what type of operation you have, there is a Phillips 66 Heavy Duty Motor Oil suited to your fleet.

Let us help you solve your lubricating problems. A Phillips 66 lubrication engineer will be glad to assist you, free of charge. Write to: Sales Department, Phillips Petroleum Company, Bartlesville, Oklahoma.



It's Performance That Counts!

PHILLIPS 66 HEAVY DUTY MOTOR OILS



JALTEN

**gives equal strength
with lighter weight**

High-fatigue loads increase payloads. Jalten steel in truck, trailer, and bus frames reduces over-all weight and induces low-cost operations.

Low alloy, high strength Jalten offers good formability coupled with excellent corrosion and abrasion resistance

Jalten's high strength permits high design loads. It also permits a reduction in section when used to replace mild steels. Usually the reduction amounts to two gages affording a weight savings of approximately 25 per cent. Thus, dead weight can be eliminated—resulting in increased carrying capacity. Also, it is easily welded.

Jalten is furnished in four grades:

No. 1—possesses high strength, good formability and fabricating qualities—good resistance to low temperature impact.

No. 2—offers high strength, moderate formability—improved resistance to atmospheric corrosion.

No. 3—gives high strength—improved resistance to abrasion.

No. 4—provides superior formability and surface quality for bumper stock applications requiring plating.

Jalten Steels are available as sheets, strip, plates, structurals, bars and small shape sections.



SEND FOR THIS NEW BOOK:

Chemical properties of Jalten
Mechanical properties of Jalten
Jalten equivalents
Jalten application data



Jones & Laughlin
STEEL CORPORATION • PITTSBURGH

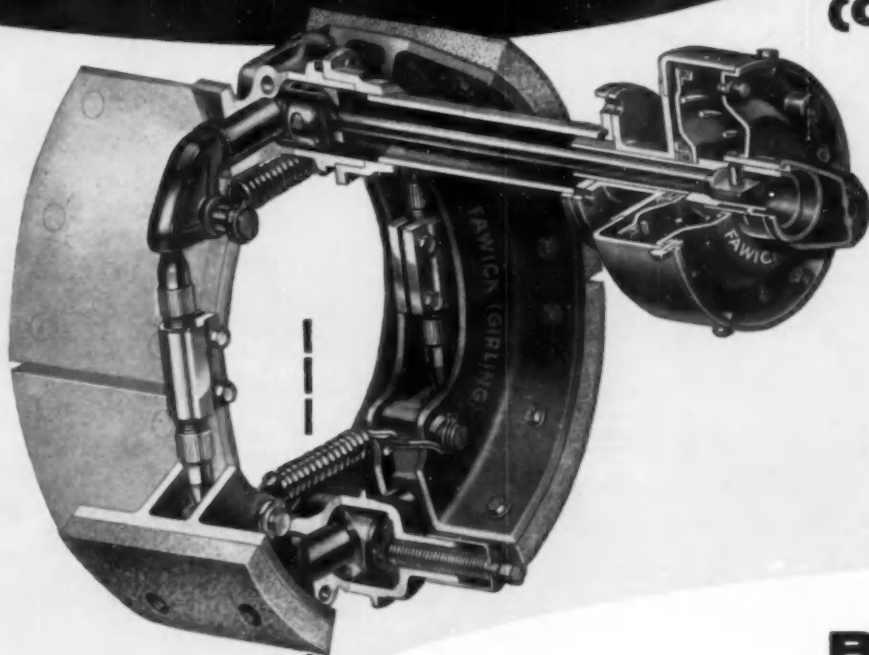
Now!

The brake you'll want to know more about . . .

**FAWICK
(GIRLING)**

2LS

BRAKES



available in two sizes
for rear axles:

16½" x 6"-7" for 20, 22 and
24-inch wheels with greater capac-
ity than cam brakes.

15½" x 7"-8" for 18-inch
wheels with equal capacity to cam
brakes for 18, 20, and 22,000 pound
axles.

(available in other sizes for front
axles).



For further technical information on Fawick
(Girling) 2LS Brakes, write today for Bul-
letin BD-12 "Two Leading Shoe Brakes"

Advanced "Two Leading Shoe" design provides:

greater torque capacity than same size cam brakes plus highest
braking efficiency in both forward and reverse.

weight savings—2LS Brake with actuation is 20% lighter than same
size cam brake.

fewer lining replacements through superior wear pattern.

direct actuation—air*, vacuum or hydraulic—no cam shafts or
slack adjusters.

optional integral parking brake

smaller volumetric requirements for actuation mean longer
compressor life, more applications from standard reservoirs.

*Fawick  Air Cylinder

FAWICK BRAKE DIVISION
CORPORATION

C L E V E L A N D • O H I O

Now "making power behave" with automotive brakes

100 at a time!



HANCOCK TRUCKING buys 100 new HIGHWAY CLIPPERS

When a leading trucking line decides to expand, it wants the finest equipment. That's why Hancock Trucking, Inc. has purchased 100 of these all-steel Highway Clippers in its first order alone!

With direct service to 8 central and eastern states — plus co-operative service to other points — Hancock knows the rugged demands of cross-country trucking. The Clipper fills the bill with high cubage, economical weight, maximum strength and rock-bottom maintenance!

The new fleet is on the road today. Hancock officials say, "We're very happy with them...they give us excellent service." Hancock's evaluation is based on performance — and Highway performance sells a fleet at a time!

*With Highway Trailers...the most
important feature is PERFORMANCE!*

HIGHWAY TRAILER COMPANY

HEADQUARTERS: EDGERTON, WISCONSIN

Manufacturers of: Commercial Trailers • Trailerized Tanks and Dry Bulk Haulers
• Public Utility Bodies • Earth-Boring Machines • Pole and Cable Reel Trailers
• Winches • Power Take-offs • Service Accessories

SALES AND SERVICE IN PRINCIPAL CITIES



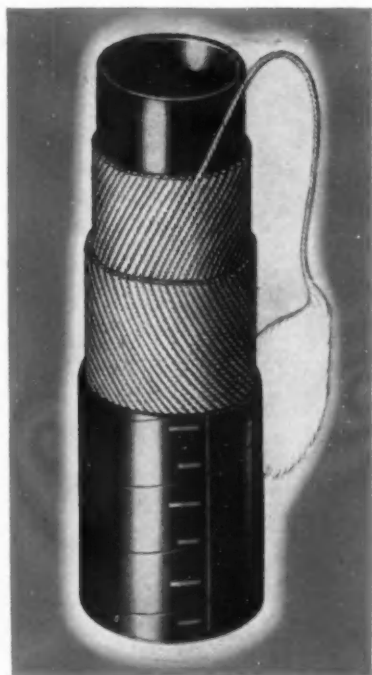
Got Your Hands Full **OF HOSE** **TROUBLES?**

REPLACE FAULTY RADIATOR HOSE BEFORE IT GOES WITH DAYTON—SPECIALLY DESIGNED FOR HEAVY-DUTY TRUCK, BUS AND TRACTOR SERVICE

UTILIZING RUGGED SYNTHETIC RUBBER COMPOUNDS, reinforced with two plies of high-tenacity rayon tire cord at 90° angle to each other, Dayton has produced a radiator hose that actually gets stronger under high temperatures—that will not crack at clamps under severest use.



© D. R. 1956



DAYTON RADIATOR HOSE is available in 21 most used sizes, in 3' lengths. Easy to measure and install.

Extremely flexible at lowest temperatures, Dayton Hose also absorbs vibration at radiator connections, circulates coolant dependably under all conditions.

Write today to Dayton Rubber Company, Automotive Div., Dayton 1, Ohio. An experienced Dayton Fleet Engineer will be happy to specify the correct sizes and types of dependable Dayton Radiator Hose to keep your fleet running on schedule—and at reduced maintenance cost.



INSTALL DAYTON COG-BELTS*—for thousands of extra service miles under heavy-duty operations. Exclusive, patented Dayton molded cogs resist heat. Belts last longer—cut replacement costs up to 66%.

*T. M.



Dayton Rubber
51
YEARS OF PROGRESS

**DAYTON RUBBER COMPANY ACTIVELY SUPPORTS
THE AMERICAN TRUCKING ASSOCIATIONS, INC.**

October News Roundup

Continued from Page 208

action, all Missouri owned vehicles with GVW over 18,000 lb will be required to secure New York registration in addition to paying the mileage tax. New York starts its inspection program for vehicles over 4 years old in February, 1957. Vehicles 1938 and older will be inspected in Feb., 1939-40 in March, 1941-45 in April, 1946 in May, 1947, in June, 1948 in July, 1949 in Aug., 1950 in Sept., 1951 in Oct. and 1952 in Nov. By May 1, it is expected that all used vehicles of any age will have to be inspected at time of sale.



Motor Freight Corp., Terre Haute, Ind.—to six drivers. Their outstanding records total 83 years, approximately 6,860,000 mile without an accident.

E & L Transport, Dearborn, Mich.—to 175 drivers. The drivers shared in cash awards totalling \$7000.

Motorcar Carriers, Pontiac, Mich.—to 159 drivers. Their total record without chargeable accident was 443 years, over 33 million miles of safe truck driving.

Columbus Transit, Columbus, Ohio—to 20 drivers. They were part of a group of 325 operators so honored in the past 12 months.

Herr's Motor Express, Quarryville, Pa.—to 22 drivers. It was the fleet's eighth annual safety dinner with many local officials, businessmen and newspaper publishers in attendance.



New name for the former Eastern Motor Express, Inc., Terre Haute, Ind., is **Eastern Express, Inc.**

General Expressways System, Chicago, has completed its fleet modernization program. Organized as a new company in July, 1954, since then General Expressways has spent more than \$8 millions for 800 new high-cube vans, 225 highway tractors and 75 new city delivery and pick-up trucks. Mobile radio has also been installed in 20 of the pick-up trucks used in the Chicago area.

A. B. & C. Motor Transportation, Fitchburg, Mass., has received the first group of 75 recently purchased FBC tractors. A GMC-designed system of preventive maintenance is being installed with the vehicles.

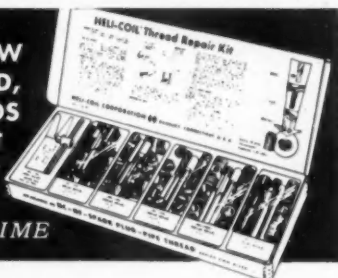
Mason and Dixon Lines, Kingsport, Tenn., has added 225 White "9000" tractors equipped with 175 hp Cummins Turbo-Diesel engines.

Citizens Coach Co., Little Rock, Ark., has purchased 15 new 39-passenger Mack C-47 buses.

Dallas (Texas) Transit Co. is experimenting with air-conditioned buses to determine whether it will be practical to equip the entire fleet with
(TURN TO PAGE 220, PLEASE)

HOW TO RENEW RUSTED, BUSTED, WORN THREADS ON THE SPOT IN MINUTES

SAVE DOWN TIME



Ruined threads, broken or frozen studs are no longer a problem. Just drill out, tap with special Heli-Coil® tap, win in Heli-Coil Insert. Result? Original-size thread of stainless steel, strip-proof and corrosion-proof.

Recommended by leading manufacturers of trucks, road and agricultural equipment, autos, utility engines. Everything needed comes packed in a convenient, inexpensive Heli-Coil Ezy-Kit or Heli-Coil Shop-pack for each thread size. Wide range available in NC and NF series; also pipe and spark plug threads. Sold by leading automotive wholesalers.



*Reg. U.S. Pat. Off.

3538

HELI-COIL CORPORATION
410 Shelter Rock Lane
Danbury, Conn.

☐ Send complete descriptive literature
☐ Send name of nearest wholesaler

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

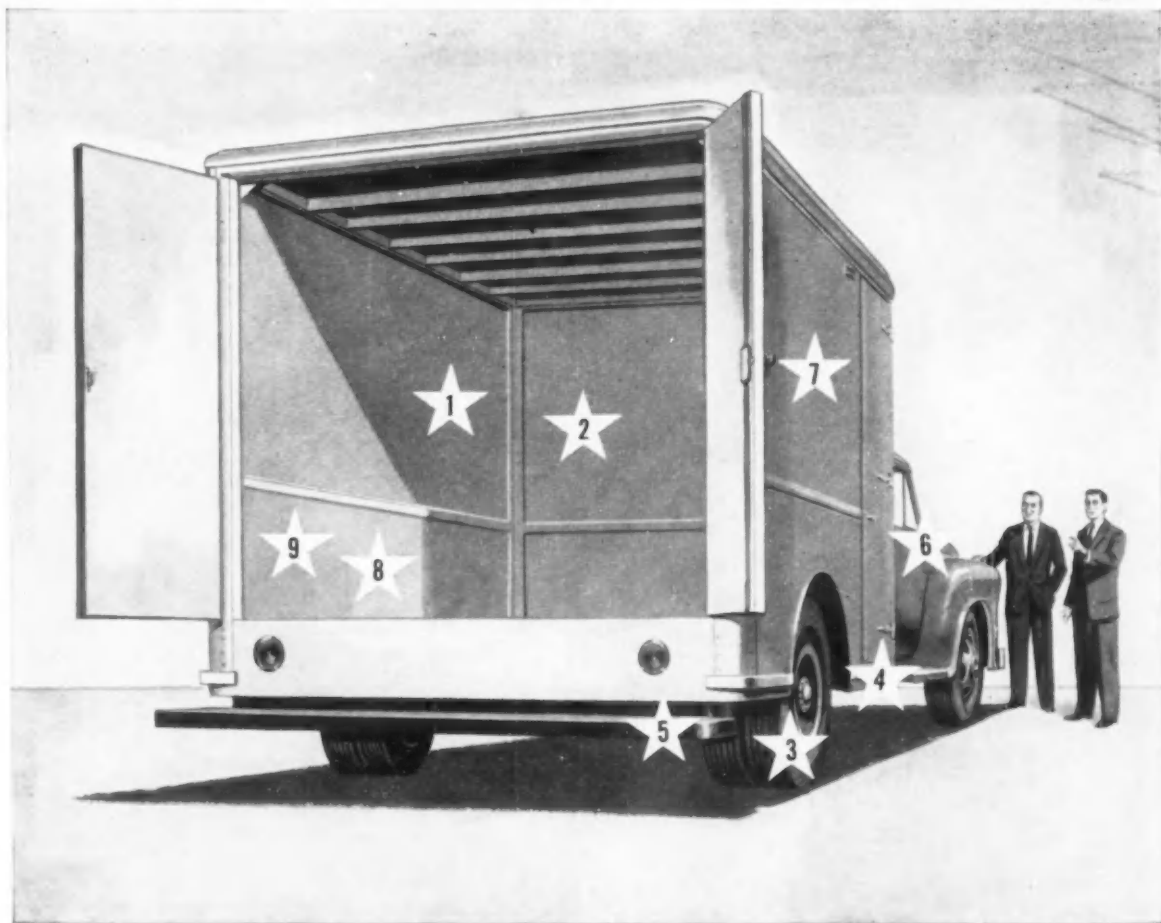
IN CANADA: W. R. Watkins Co., Ltd., 41 Kipling Ave. S., Toronto 18, Ont.



This safe, portable Automatic Cargo Heater gives up to 8000 BTU per hour for full protection of perishables in trailers and trucks. Can be instantly set to control temperature from 30° to 60° F, irrespective of altitude. Burns up to 40 hours on full flame — 500 hours on pilot — on one filling of methyl alcohol. Easily installed or removed. Heater is explosion and weather-proof — produces no poisonous fumes — requires no vents. More than 45,000 Preco Heaters have been sold for trailers, trucks and refrigerator cars over the past 6 years.

Write or wire for full particulars today.

PRECO INCORPORATED
6300 East Slauson Ave., Los Angeles 22, California



look at the ways magnesium saves you money!

- ★ 1. Greater cubic capacity
 - ★ 2. Increased payload
 - ★ 3. Reduced tire cost
 - ★ 4. Lower chassis cost
 - ★ 5. Better fuel economy
 - ★ 6. Less wear on engine, transmission
 - ★ 7. Higher resistance to dents
 - ★ 8. No space-taking liners
 - ★ 9. No hindering body posts
- plus*
- Longer-lasting "new" appearance
 - Superior structural strength
 - Lower tax rates
 - Lower insurance premiums
 - Baked mill prime finish protects against corrosion

Magnesium Monocoque truck bodies weigh up to 50% less—give you lower operating and maintenance costs, higher profits per trip

Yes, you save money in all these different ways, and for one good reason: lighter weight. Truck bodies made with magnesium, the world's lightest structural metal, are stronger and more durable than steel or aluminum bodies—yet they weigh much less. And that big savings in truck weight can mean big savings in cost for you.

Magnesium Monocoque simplified

thick sheet construction can actually add 34 cubic feet more interior capacity in a twelve-foot body. It can increase payload or decrease chassis cost. It can decrease fuel consumption and engine wear. In every way, it gives you a better truck to work with and a better profit per trip!

Whether you operate one truck or a fleet, you will want our new illustrated booklet on magnesium truck bodies. Contact your nearest Dow sales office or write THE DOW CHEMICAL COMPANY, Midland, Michigan, Magnesium Sales Department MA-374N-1.

you can depend on DOW MAGNESIUM

DOW



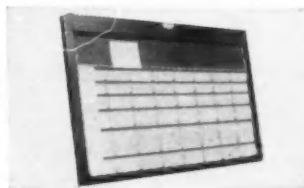
LIBERTY MOTOR FREIGHT LINES INC., CAN TELL AT A GLANCE WITH SCHED-U-GRAPH®

SCHED-U-GRAPH the unique visible record board shows at a glance the exact location of equipment—whether on the road—or in the shop. SCHED-U-GRAPH gives constant control of interchange—shows what loads are being carried as well as the percentage of capacity being used by each truck.

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DIVISION OF SPERRY RAND CORPORATION

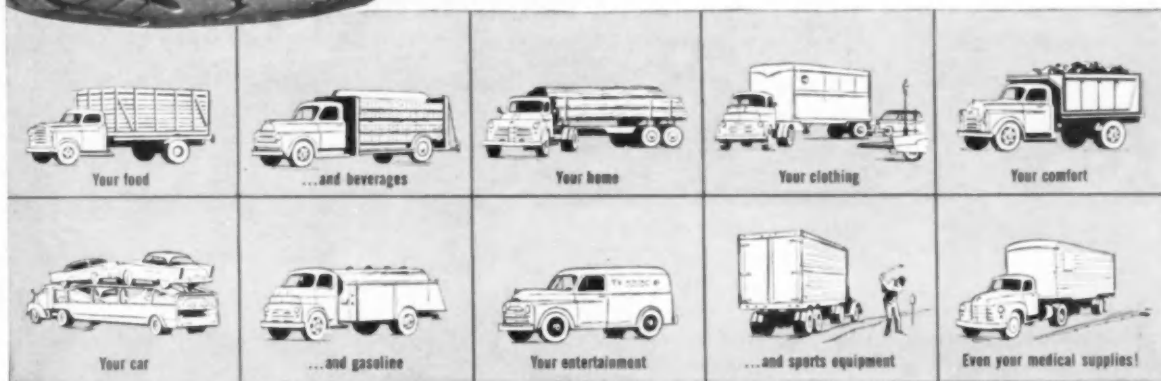


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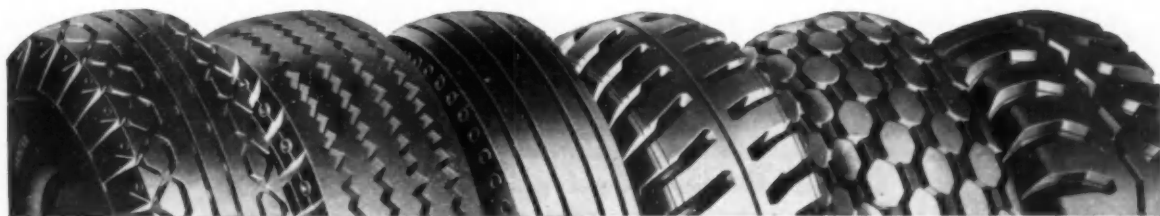
the necessities
and luxuries you
are enjoying have
been brought
to you by truck!



Remember, too . . .

trucks that operate with lowest
cost per tire mile run on Seiberling
Traction Lug Highway Tires,
*the tires that are guaranteed to lower
cost-per-mile by at least 10%!*

SEIBERLING
RUBBER COMPANY
AKRON 9, OHIO



SEIBERLING BUILDS A QUALITY TIRE FOR EVERY ROAD AND LOAD

New valve combinations by **TOLEDO STEEL** *can* **DOUBLE...** *even* **TRIPLE...VALVE MILEAGE**



SATISFIED with your present valve mileage? Even so, a consultation with your local Toledo Steel Distributor could prove profitable. New combinations of Toledo Steel valves and valve train parts are doubling, even tripling, valve mileage for truck operators all over the country. "Down time" is reduced and maintenance costs lowered.

If your present valve mileage is low or just average... or if you are experiencing problems such as valve burning, stem sticking, seat deposits, etc.—see your Toledo Steel Distributor. He can show you the combination of valve and valve train parts that will solve your problem and give you longer valve life at lower cost per mile.



TOLEDO STEEL PRODUCTS

6402 CEDAR AVENUE • CLEVELAND 3, OHIO
Division of Thompson Products, Inc.





"No better tandems than Hendrickson" ... says Les Wilsey, Jr., of Indianhead

"Maintenance-wise, there isn't any better tandem on the market," says Lester Wilsey, Jr., Operations Manager for Indianhead Truck Line, Inc., of St. Paul, Minn.

Mr. Wilsey is speaking of the Hendrickson Tandems in Indianhead's fleet. This bulk products hauler has experienced *no* particular maintenance cost on any of the Hendrickson Tandems operated up to 300,000 miles.

"They would probably go 400,000 miles without any trouble," says Mr. Wilsey... though the company is overhauling the tandems at this point. "The Hendrickson is the only one we want, and the only one we are going to specify. Our tire wear is extremely good, and the Model RS Tandem with the rubber load cushion will give us an indefinite operat-

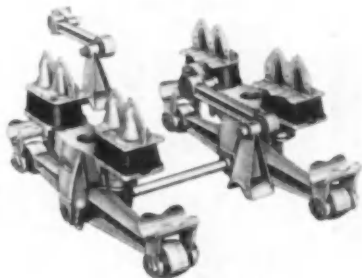
ing life." Indianhead uses Hendrickson Tandems throughout its fleet of 59 tractors and 67 8000-gallon all-aluminum tank trailers.

In 1955 Indianhead hauled all types of bulk commodities over 5,859,606 miles between 7 terminals in its five-state area of North and South Dakota, Minnesota, Iowa and Wisconsin.

Hendrickson Tandems make those miles more trouble-free, more profit-producing for Indianhead... they can do the same for you. They stabilize the load, eliminate brake and starting chatter, assure perfect axle alignment, and end tire scuffing.

For hauling heavier payloads faster, cheaper... under all road and load conditions... equip your rigs with Hendrickson Tandems.

One of Indianhead's RF-190 International tractors and Butler aluminum tankers, both equipped with Hendrickson Model RS Rubber Load Cushion Tandem Suspensions.



HENDRICKSON
Mfg. Co.

HENDRICKSON MFG. COMPANY
8001 WEST 47th STREET
LYONS (Chicago Suburb), ILLINOIS



Double Drive
Six Wheel Truck



Trailing Axle
Six Wheel Truck



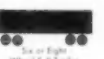
Double Drive
Six Wheel Tractor



Trailing Axle Six Wheel
Rubber Type Tractor



Tandem Axle
Semi-Trailer



Six or Eight
Wheel Full Trailer



Portable
Special Machinery



Six Wheel
Crane Carrier



Eight
Wheeler



Eight-wheel Tractor and
Eight-wheel Semi-Trailer

October News Roundup

Continued from Page 214

air-conditioning. Two units are now being tested, with the engineering problems and installation under the supervision of Frigikar Corp., Dallas.

Terminal Transport, Inc., Atlanta, Ga., has purchased 30 new 35-ft mechanically refrigerated Trailmobile trailers equipped with Transicold refrigerator units.



Hobbs Trailers, Fort Worth, Texas, has appointed Betbeze Manufacturers & Distributors, Mobile, Ala., and Springfield White Trucks, Inc., Springfield, Mo., as trailer sales and service facility in their respective areas.

Kenworth Truck Corp. announces a new address for the Texas Kenworth Corp. It's 7901 Harry Hines Blvd., Dallas, Texas.

Thor Power Tool Co., Chicago, has moved its Detroit sales and service branch to 14515 Puritan Ave.



... William W. Ward, president of Ward Trucking Corp., Altoona, Pa., recently appointed to the Transportation Council for the United States Department of Commerce.



... R. E. Sprow, manager automotive sales, Lubricating Equipment Division, Aero Equip. Corp., Bryan, Ohio.

... Kenneth C. Deacon, vice president and general manager, The Gertenslager Co. He was vp and gm for Dodge trucks.



... G. S. Childress, sales manager, Snap-on Tools Corp., Kenosha, Wis.

... Fred J. Kelly, left, promoted to general parts manager, and R. M. Tullos, right, promoted to general service manager, Reo Motors, Inc., Lansing, Mich.



END

Please Resume Reading Page 92

refilco

oil filter cartridges

are GUARANTEED for 5000 MILES OR ITS HOURLY EQUIVALENT



REFILCO'S 'PREMIUM-PACK' line of heavy-duty, long-life oil filter replacement cartridges in the 3 popular types ..CAN.. SOCK.. MICRON IN EVERY SIZEFOR ALL TYPES OF ENGINESGAS OR DIESEL

ARE NOW BACKED BY THE STRONGEST, FACTORY-BONDED WRITTEN GUARANTEE EVER PLACED BEHIND ANY OIL FILTER CARTRIDGE!

- Your maintenance department can count on FULL pre-determined filter performance and costs for every engine.
- No WASTE FILTER MILEAGE with REFILCO means lower costs.

NEW! REFILCO'S 'THRIFT PACK' line at the lowest rock bottom prices packs the greatest quality value!

Fill out coupon and mail today for catalogs and information, and where to buy REFILCO oil filter cartridges.

REFILL FILTER CO., 841 FIFTEENTH AVENUE, NEWARK 3, N. J.
☐ Have Representative call. ☐ Send more information. ☐ Where can I obtain REFILCO.

Firm _____ By _____
 Address _____ City _____ State _____

DISTRIBUTORS:
 Choice territories are still available on an exclusive basis... protected by a written franchise.

advanced design in turbochargers

means...

air-cooling!



**AiResearch
turbochargers
possess this
all-important
characteristic**

There's little quarrel in the diesel industry about the air-cooling principle being highly-desirable in a turbocharger. It eliminates the need for extra plumbing on installation, puts no additional burden on an engine's cooling system and makes for a lighter, smaller unit in relation to output.

AiResearch turbochargers now available have been designed on this principle — which promises to be universal in the future. In addition,

our units increase power up to 100% depending on design and application of your engine, cut fuel costs, reduce noise and decrease or eliminate smoking. The removable rotating assembly

makes them easier to maintain than other turbochargers.

We invite your inquiry on how you can improve the performance of your diesels by the application of our turbochargers.

BASIC SPECIFICATIONS FOR AIRESEARCH TURBOCHARGERS

MODEL	T-10	T-14	T-15	T-30-2	T-30-6
Diameter — in. nom.	9	11.5	15.25	15.25	16
Length — in.	9	14.12	16.75	17.25	21.75
Weight — lb.	40	95	125	135	195
Output — lb/min.	25-40	35-65	35-65	70-95	115-175
(Standard Conditions)					

THE GARRETT CORPORATION

AiResearch Industrial Division

9225 South Aviation Blvd., Los Angeles 45, California

DESIGNERS AND MANUFACTURERS OF TURBOCHARGERS AND SPECIALIZED INDUSTRIAL PRODUCTS

COMMERCIAL CAR JOURNAL, October, 1956

221

**STANDARD
Wheel Block
Model WB2H**



WHEEL BLOCKS

are standard equipment used by many transportation companies and fleet owners for trucks, trailers and other heavy wheel loads.

They meet all blocking requirements to prevent slips and hazards in parking, loading, towing and emergency stops on steep grades.

Made of high-strength alloy steel—with ribbed supports and rounded corners. Provided with broad grip-per teeth to hold securely on pavement or any surface, even ice or snow.

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FREE to Every Shop Operator



76 Pages—275 Illustrations
56 Engine Reference Tables
26 Parts Lists

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- Nozzle Testers for American Bosch, Caterpillar and Bendix Nozzles
- Cummins Injector Tester
- International Harvester Injection Testers
- General Motors Injector Testers
- Injection Pump Calibrating Stands
- Nozzle-Injector Cleaning Tools and Lapping Blocks
- Engine Overhaul Stands
- Engine Removal and Parts Dollies
- GM 71 Engine Tools

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☐ Diesel Manufacturers ☐ Parts and Engine Distributors

NAME _____

COMPANY _____

STREET _____

CITY AND STATE _____

2

AD-15

**End cold weather damage
to your Gas or Diesel Engines**

INSTALL

KIM Hotstart
electric pre-heater



QUICK, EASY STARTS



ELIMINATES WARM-UP TIME



REDUCES ENGINE WEAR

KIM HOTSTART plugs into the electric circuit when engines are not in use. It draws cold water from the engine, heats it, then circulates it back through the engine. No need for heated terminals. Engines remain warmed-up; start quickly. You don't use as much fuel and spend less on repair bills. Four KIM models are available. Installation is simple. See your automotive supplier or write for literature.

KIM HOTSTART MANUFACTURING COMPANY

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**DECAL
TRUCK
SIGNS**



**CONSTANTLY ADVERTISING YOUR BUSINESS—
ON BUSIEST THOROFARES AND ON QUIETEST STREETS**

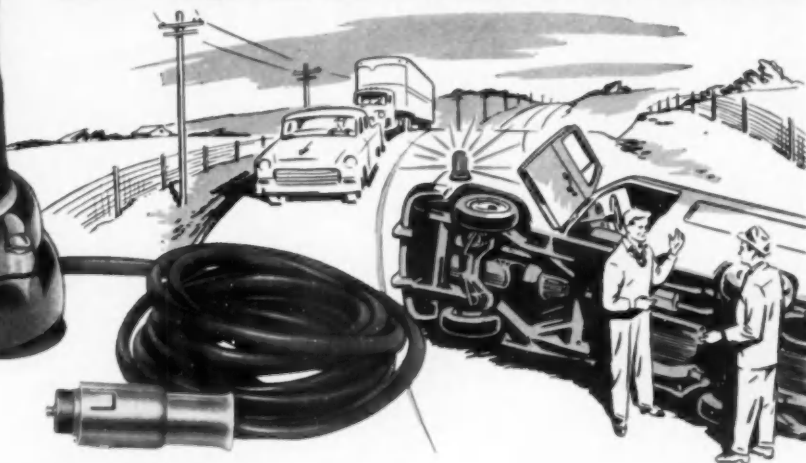
Yes—even in dusty alleys! Recently the Herrud Company asked us to suggest a way to capitalize upon the fact their delivery trucks spend a great deal of time parked in alleyways, making deliveries to rear store doors. Meyercord artists quickly created a colorful, attention getting decal truck sign for the rear panel as well as side panels. Now the Herrud pictorial sales story is told constantly all day long on busy streets, in quiet neighborhoods...even when parked in alleys.

FREE! If you operate 10 or more trucks of any size or type, you ought to have the startling cost saving facts about Meyercord Decal Truck Signs. Let us send you the full story in the new "Ads on Wheels" book in full color. Write

THE MEYERCORD CO.
World's Largest Decalomania Manufacturers

DEPT. Y-515
5323 W. LAKE ST.
CHICAGO 44, ILLINOIS

POWERFUL and PORTABLE



New Griffin Emergency Blinker plugs into cigarette lighter—for instant use!



360° Lamp with Screw-on mounting

New, also, is the Model 362 Griffin Emergency Blinker with screw-on mounting. Perfect for part-time service on police cars, ambulances-hearses, public utility cars, or other vehicles used only occasionally for emergency duty. Lamp is easily screwed onto roof mounting which contains special electrical jack for operating current. Cover for jack when lamp is not being used.



Model 360 Emergency Blinker

Griffin conventional, permanently mounted 360° emergency lamp. High-intensity blinker—for fire, police, highway vehicles, ambulances, emergency trucks, utility trucks.

You're all set for any emergency—in seconds—with this new Griffin *portable* high-intensity emergency blinker. No matter what kind of trouble occurs, you can warn oncoming traffic, in all directions, with this 360° danger signal fastened right on the trouble source. Perfect for police cars or emergency vehicles.

This new portable blinker (Model No. 361) is equipped with large rubber suction cups bolted on the base. Mounts securely on any flat, smooth surface.

Like all Griffin emergency blinkers, this new model has a special airport prism-type lens for better visibility—farther. It projects a high-intensity light pattern in every direction—clearly visible in daylight or darkness. 10 feet of cord permits plugging into disabled vehicle or emergency vehicle. Available with plug for cigarette lighter, or with battery clamps if desired.

THE GRIFFIN LAMP COMPANY, HAMILTON, OHIO, SHELBY, MISS.

Warehouses: Boston, Pittsburgh, Los Angeles,
San Francisco, Seattle



We can match any **DESIGN**

with Inland Self-Sealing
Weather Strip

No matter what your sealing problem is, or will be—whether in glass or plastic; flat or curved; fixed or sliding window—Inland Self-Sealing Weather Strip, with separate patented filler strip, will solve it. And when Inland Strip goes in, water stays out! In cars, trucks, buses, trains, planes and other over-the-road vehicles and in any structures where windows are fixed and must be positively sealed—Inland Weather Strip is the answer!

Inland Self-Sealing Weather Strip can be produced to meet your individual requirements, and is always available in many standard shapes and sizes.

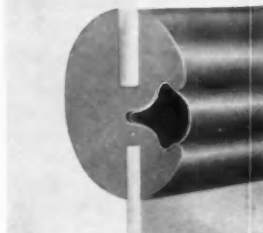
When you specify Inland Weather Strip you can be sure it will be precision made and you are also assured of a long, trouble-free service life.

INLAND

self-sealing weather strip
(PATENTED)



INLAND MANUFACTURING DIVISION
General Motors Corporation, Dayton, Ohio



a part of the General Motors Master Plan for Greater Highway Safety through Better Engineered Products!

Whatever
the **DESIGN...**

We can make it
WATER-TIGHT!



Transportation Industry



Automotive Installations



Railway Equipment



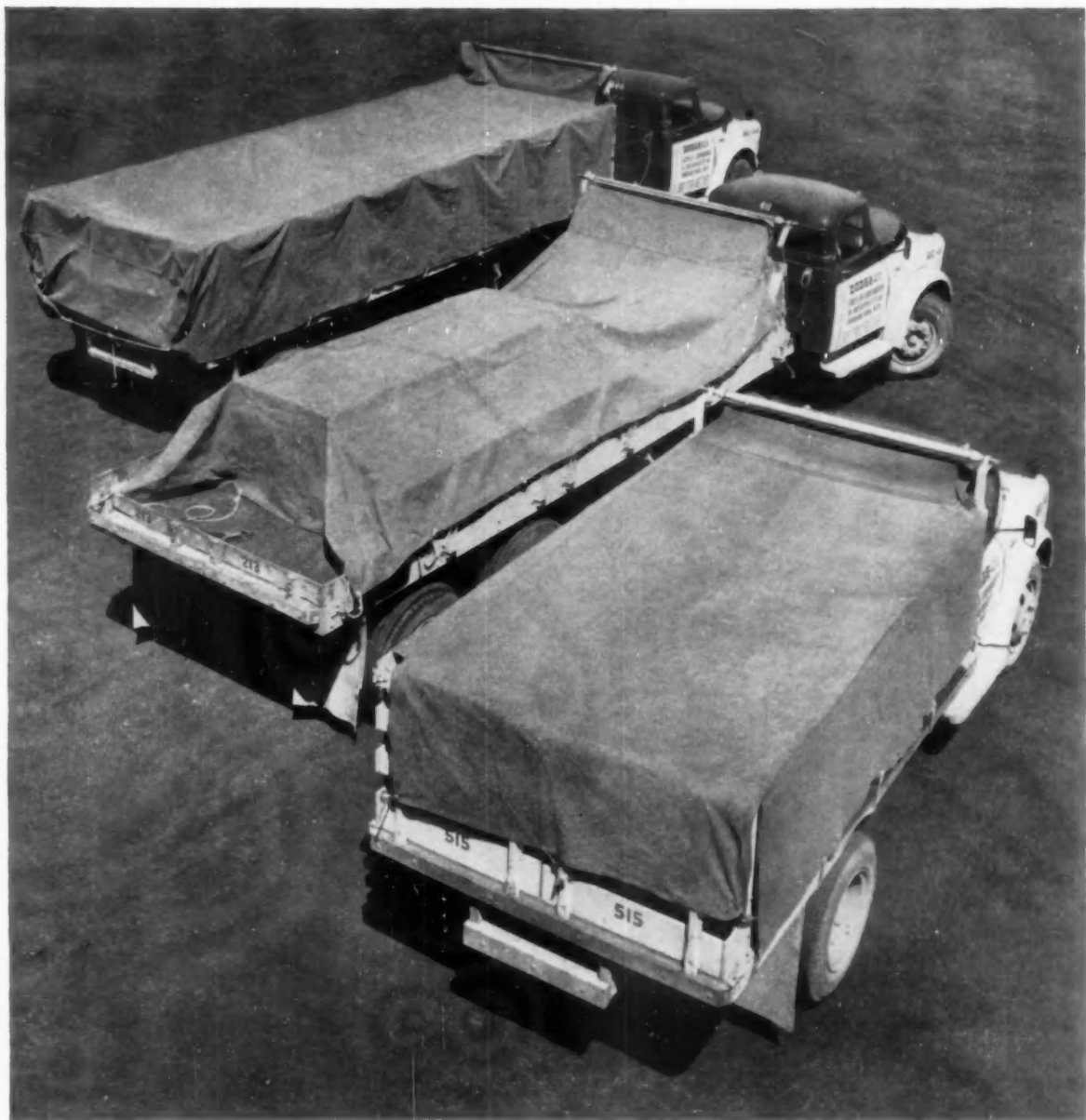
Marine Applications



Over-the-road Equipment



Commercial Structures



RAINY DAY COVERAGE Chrysler Corporation maintains a large fleet of heavy duty Dodge trucks for transporting parts and materials to its various factories. Because on-time shipments are vital to production schedules, all of these trucks must be ready to roll practically on a moment's notice, regardless of weather. In order to afford maximum protection to open stake bodies and flat bottom tandem steel trailers, each is equipped with a sturdy canvas cover cloth affixed to a roller in the front of the truck. The roller permits the protective cover to be quickly unfurled when needed and neatly secured when not in use. The covers shown are manufactured by the John Johnson Company of Detroit and are made of Mount Vernon duck.

This is another example of how fabrics made by Mount Vernon Mills, Inc., and the industries they serve, are serving America. Mount Vernon engineers and its laboratory facilities are available to help you in the development of any new fabric or in the application of those already available.



Mount Vernon Mills, Inc.
A LEADER IN INDUSTRIAL TEXTILES

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NOW! A truck lift at the price of a passenger car lift!

WEAVER TWIN POST LIFT

Easy does it—the WEAVER way

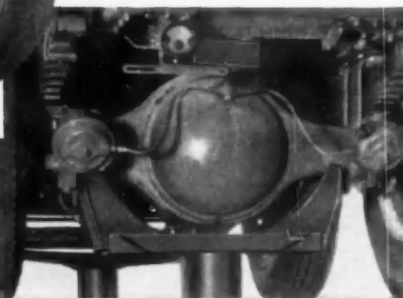
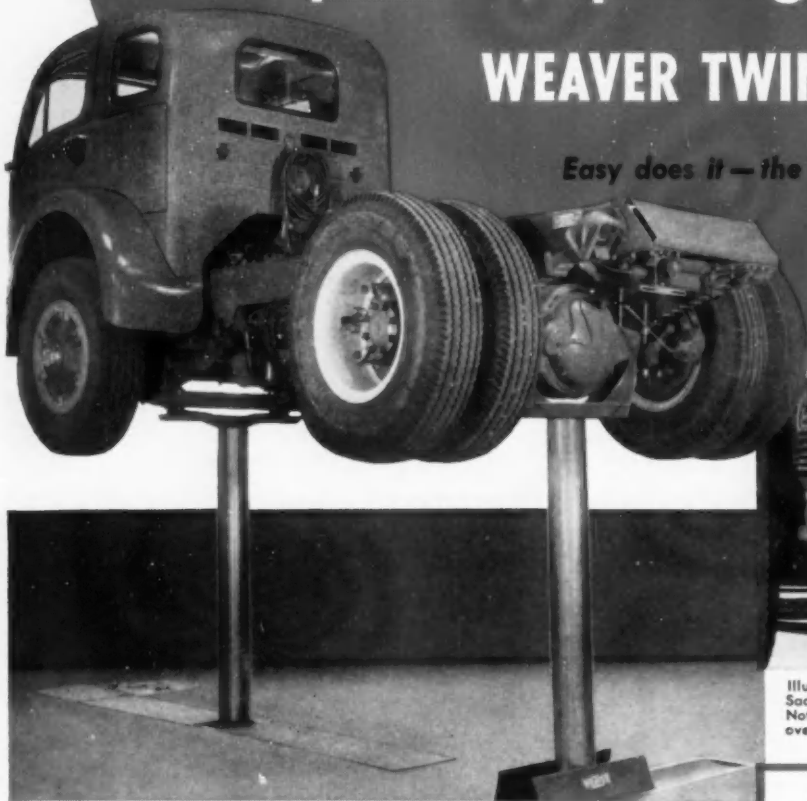


Illustration above shows how Adjustable Rear Saddle Adapter cradles large differential housing. Note that vehicle load is always carried directly over piston, regardless of wheel base length.

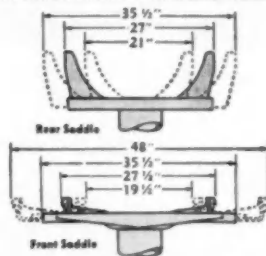
You can now buy a Weaver Twin Post Lift that will handle trucks weighing up to 8000 lbs. per axle, regardless of wheel base length. This new Lift is regularly furnished with a wheel base capacity of 100" minimum to 160" maximum, but is also available with wheel base adjustment from 40" minimum to any desired maximum.

Rear Saddle Adapters (see inset) on new Weaver Lift have an adjustable width range of 21" to 35½" to assure secure cradling of axles on all types of trucks. Front saddle has adjustable range of 19½" to 48".

All the labor-saving Weaver Twin Post features are included... complete under-chassis accessibility without rails in the way... ability to handle all wheel base lengths without loss of lifting capacity... freedom from obsolescence caused by changes in vehicle design... floor level controls. See your Weaver Jobber today or write us for Bulletin CCJ-749.

SPECIFICATIONS

Model	Operation	Capacity (lbs.)		
		Total	Front Post	Rear Post
EC-102	Air-Oil	11,000	5,500	5,500
EC-103	Electric-Oil	16,000	8,000	8,000



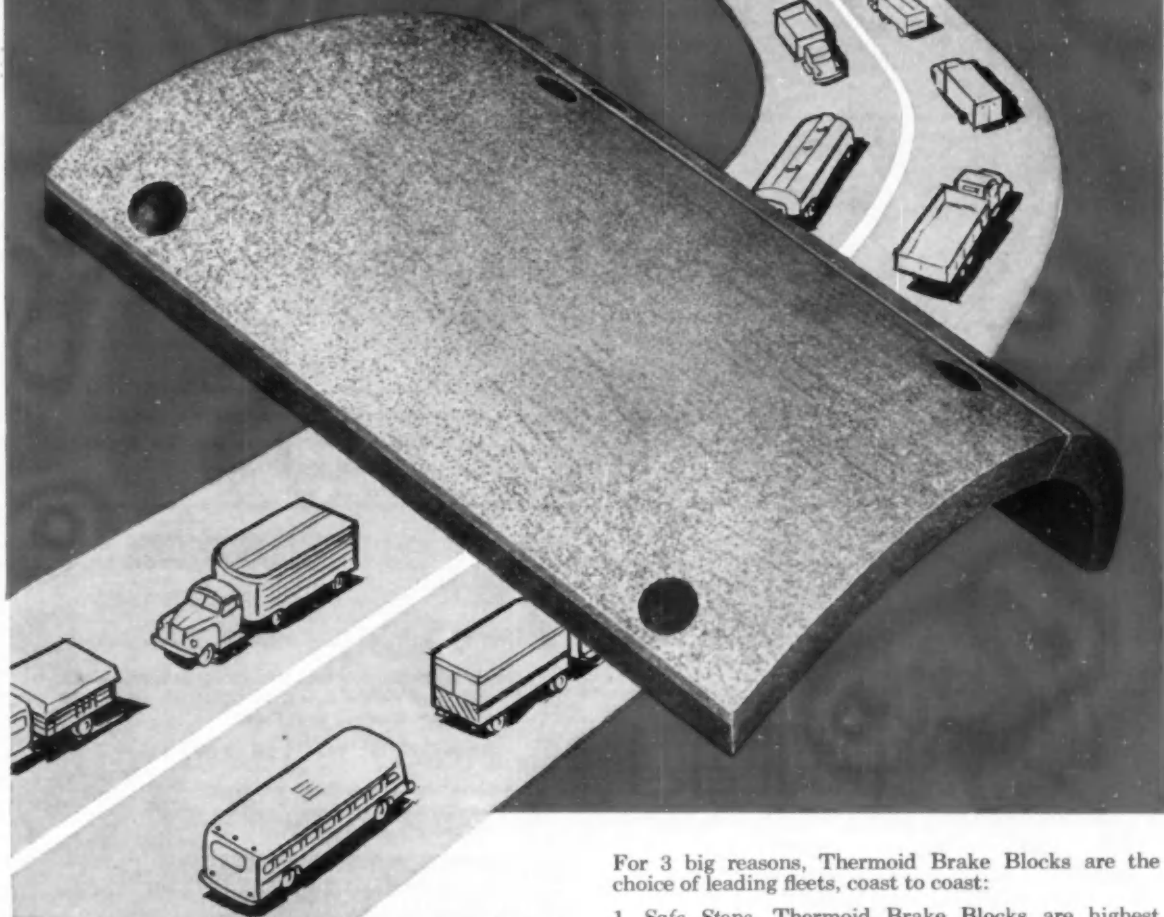
WEAVER

WEAVER MANUFACTURING CO., SPRINGFIELD, ILL., U.S.A.

SERVICE SHOP EQUIPMENT

Complete Weaver line includes: Twin Post Lifts... Single Post Frame Type Lifts... Unit Lifts... Bumper Lift... Car Washers... Wheel Alignment Equipment... Headlight Testers... Brake Testers... Wheel Balancing Equipment... Jacks... Wheel Dollies... and Air Compressors.

Maximum Safety— Minimum Maintenance—



Keep your fleet rolling with Thermoid Pre-Stretched Fan Belts, BT Radiator Hose and Air Brake Diaphragms.

You get a better brake with Thermoid precision-engineered Hydraulic Parts and Heavy Duty Brake Fluid.

For 3 big reasons, Thermoid Brake Blocks are the choice of leading fleets, coast to coast:

1. *Safe Stops.* Thermoid Brake Blocks are highest quality—exceed the most rigid stopping tests.
2. *Consistent Action.* You get smooth, positive braking regardless of weather conditions or operating temperatures.
3. *Long Life.* Again, Thermoid quality pays off—in lower replacement costs and reduced down time.

Whether you're operating on long, open-road stretches or in congested city traffic, you'll get maximum safety at minimum cost with Thermoid Brake Blocks!

Thermoid

Thermoid Company • Trenton, New Jersey



Automotive Service & Know-How Since 1929
THE BUXBAUM COMPANY
 CANTON 1, OHIO

**Cost Less Because
 They Wear Longer!**

AKRO Truck & Trailer Flaps

- Built like the toughest tires. Super-tough rubber completely cord-impregnated!
- Conform to all state codes. Approved by state highway patrols.
- Complete size range: 24" x 30" to 24" x 40".



PAT. NO. 2446219

Write for FREE copy of
 Cooling System Service
 Manual and complete in-
 formation.

RADIATOR SPECIALTY COMPANY

CHARLOTTE, NORTH CAROLINA
 In Canada: Radiator Specialty Co., Ltd., Toronto

HARD-WORKING TRUCKS NEED EFFICIENT COOLING SYSTEM!

Internal Cooling System Pressure **MUST** be maintained.
 Leaks allow motors to overheat, waste coolant.



PRESSURE TESTER

A Precision Instrument, features safety relief valve, micro-honed barrel, nylon bushings.

LOCATES LEAKS ANYWHERE IN COOLING SYSTEM

Enables operator to find internal leaks . . . in minutes! Tests caps, hose, gaskets, radiators, heads, blocks, water pumps, etc. See it now . . . at your Solder Seal Jobber!

2128

Brown
 aluminum
TRAILERS
 WRITE FOR FOLDER BH-356

BROWN TRAILERS, INC.

Chicago . . . SPOKANE . . . Reading

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 Install POWER TAKE-OFF DRIVE LINES
 WITH MUNCIE "UNI-HANG" BEARINGS

Sturdy construction — bronze bushings or cast iron bearings in all popular bore sizes. Completely adjustable brackets. Cadmium plated parts.

SHAFTING WITH KEYWAYS

Saves time — cut to length and install.
 Keys fitted— $\frac{3}{4}$ to $1\frac{1}{4}$ round—square and hex.

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 THE NAME OF
 YOUR NEAREST
 DISTRIBUTOR

MUNCIE PARTS MFG. CO.
 2601 S. JEFFERSON MUNCIE, INDIANA



SIoux
**ELECTRIC
 IMPACT
 WRENCH**

No. 325 \$99.75
 No. 330 \$127.50

WITH THE EXCLUSIVE
 REVERSE CAP SWITCH LOCK.
 IT CAN'T BE REVERSED WITH THE
 SWITCH ON. IT LASTS LONGER.

ALBERTSON & CO., INC.
 SIOUX CITY, IOWA, U. S. A.



Established
 1914

YOUNGSTOWN STEEL CAR CORPORATION

NILES, OHIO

Large scale producers of . . .
 big weldments on a production
 basis—die pressed channels
 for bus, truck and trailer chas-
 sis — railway cars, repairs and
 parts — miscellaneous heavy
 presswork.



Microlite being installed in a new Trailmobile insulated trailer. No special tools or skills are required. Long, resilient fibers help Microlite stay in place.

Trailmobile relies on Microlite insulation to meet exacting customer specifications!

Take a look at the rigid requirements for insulation Trailmobile must meet in order to satisfy the exacting demands of customers like Swift & Co.

Products to be protected: fresh and smoked meats. Among the exacting specifications for truck insulation:

- It must be high in insulating efficiency.
- It must not break down under vibration . . . must not settle.
- It must be unaffected by temperature changes due to repeated loading and unloading.
- It must be light in weight.

Because Microlite meets *all* these requirements, it is the ideal insulation for trailers built to protect chilled or frozen foods.

Microlite is composed of extremely fine inorganic glass fibers, which form millions of dead air cells, giving it unusually high insulating efficiency. These resilient glass fibers make blankets that are remarkably light in weight, resist settling under vibration, and have very high tensile strength. For full details about Microlite, write: L·O·F Glass Fibers Company, Department 34-106, 1810 Madison Avenue, Toledo 1, Ohio.



L·O·F GLASS FIBERS COMPANY

TOLEDO 1, OHIO

Makers of glass fibers by the "Electronic-Extrusion" process

Accurate Engine Rebuilding with

**RESUME
SPEED**

THANK YOU

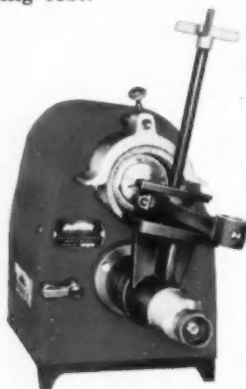
SUNNEN[®] EQUIPMENT

**KEEPS YOUR FLEET
ON THE ROAD!**

Profits are made when vehicles roll . . . not when they're in the shop! Down-time is expensive, and comebacks are costlier still! That's why you'll find so many shops equipped with modern Sunnen equipment for engine rebuilding. It moves 'em out fast . . . yet does each job with "factory accuracy." Comebacks are eliminated and vehicles stay in service longer—give better performance at lower operating cost.

Unbeatable for Pin and Rod Work

Sunnen Honing Machines have no equal for producing exact clearance and press-type pin fits. Accuracy is guaranteed to a "tenth"—there is no guesswork. And when used with the Sunnen Cap and Rod Grinder they will give you a complete Rod and Pin Shop.



**Sunnen Cap and Rod
Grinder Model CRG-500**

For precision grinding
cap and rod faces at
the parting line.



**Sunnen Heavy-Duty Honing Machine
Model LBB-1300.** Hones all bushings and
bores from .370" to 3.300" in diameter.
Equipped with AG-300 tenth-reading
dial gage for fitting pins and journal
end of rods.

SUNNEN CYLINDER GRINDERS produce an ideal surface that helps rings "seat" quickly and last longer . . . For complete reconditioning, for finishing after boring, or for partial reconditioning on "ring" jobs. Four models handle diameters from 1 3/4" to 14 1/2".

We'll be glad to send complete information or demonstrate these and other Sunnen products right in your shop, without obligation.

Write today.

SUNNEN[®] PRODUCTS COMPANY 7919 Manchester Ave., St. Louis 17, Mo.
Canadian Factory: Chatham, Ontario
For Your Protection Insist On Sunnen Measured Pin Fits

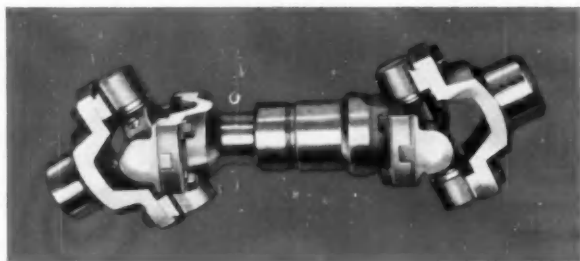
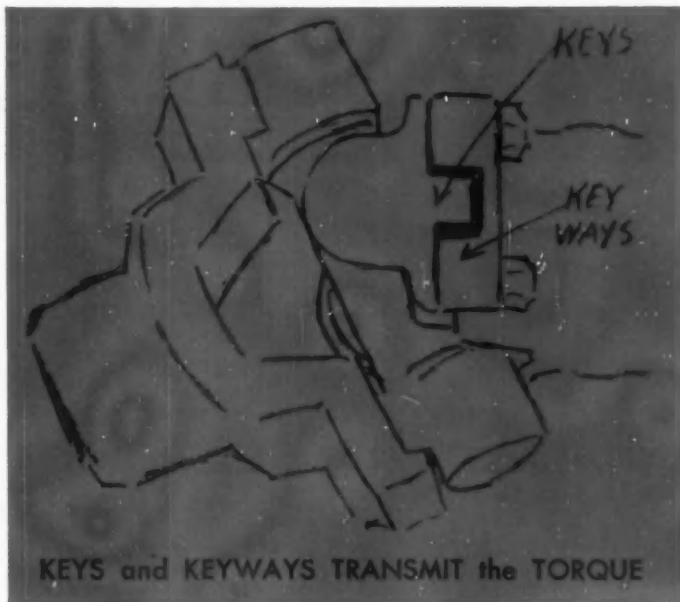
**SPECIFY
KEY-DRIVE
JOINTS FOR**

SAFE

**LESS WEIGHT
TORQUE
TRANSMISSION**

MECANICS Roller Bearing UNIVERSAL JOINTS increase the Safety factor in power transmission lines, because heavy, machined KEYS and corresponding keyways, not bolts nor screws, transmit the torque. The only function of the cap screws is to hold the bearing assemblies in place.

This KEY method of driving has the highest safety factor, transmits the most torque with the least weight, and avoids costly breakdowns resulting from driving through bolts or screws that work loose.



Let our engineers show you how this and several other MECHANICS Roller Bearing UNIVERSAL JOINT advantages will benefit your new and improved products.

MECHANICS UNIVERSAL JOINT DIVISION

Borg-Warner • 2034 Harrison Ave., Rockford, Ill.

Export Sales: Borg-Warner International
36 So. Wabash, Chicago 3, Illinois

MECHANICS

Roller Bearing

UNIVERSAL JOINTS



**For Cars • Trucks • Tractors • Farm Implements • Road Machinery •
Aircraft • Tanks • Busses and Industrial Equipment**

New Ideas Pay Off in the Trucking Industry

BIG FLEET OPERATION... ON MODERN FOUNDATION



FOR TOP MILEAGE, MORE BIG FLEETS ARE ROLLING ON COST-CUTTING DAYTON TRUCK TIRES THAN EVER BEFORE

THE TREND IS TOWARD stronger, lighter construction in trucks and truck-trailers for more payload capacity. In anticipating this trend, Dayton has provided a *stronger, lighter, cooler-running* truck tire—a truly modern foundation for today's big fleet operation.

Super strength has been built into new Dayton Truck Tires. Heat producing bulk has been taken out, discarded. The result is a *stronger, lighter* tire that is *cooler-running* under sustained speed and load. With Dayton's exclusive 2200 Denier Super Cordura construction, 8 actual plies do the work of 10 plies (12-ply rating) . . . save weight that can be converted to profitable payload—give

30% greater strength than the average of 4 other first line tires of comparable size. (See chart.)

	50	60	70	80	90	100
DAYTON						
Brand A						
Brand B						
Brand C						
Brand D						

CALL YOUR DEALER OR WRITE US AT DAYTON FOR MORE INFORMATION ON the Dayton Truck Tire that has proved top mileage on tests over millions of truck miles—the tire that is a full 30% stronger than the average of 4 other leading 1st line 12-ply rating tires.

We'll see you again
at the

**A.T.A.
CONVENTION**

Be sure to stop in at

Dayton

Thorobred Room

open all A.T.A.

Hospitality hours—

Suite 4J-K-L,

Waldorf-Astoria Hotel

THE DAYTON RUBBER CO., TIRE DIVISION, DAYTON 1, OHIO



Dayton

A COMPLETE LINE OF THOROBRED
TRUCK AND PASSENGER CAR TIRES

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Thorobred Tires

TRICKS OF THE TRADE *from* PERMATEX



To Secure Wires. Loose wires are apt to rattle, and when they're held in metal clips the vibration may cause shorts. A bead of Form-A-Gasket No. 1 at spots along the wire holds it securely and protects the insulation.



Seepage from Cap Screws. Where cap screws are used to fasten an engine head to the block, coat the screw threads with Form-A-Gasket No. 2. It's an easy and effective way to prevent seepage of cooling system liquids.



Loose Wheel Bolts. Driving on rough roads can sometimes loosen wheel and hub bolts and nuts. Whenever you change a tire, coat the nut threads lightly with Form-A-Gasket No. 3, and you'll never have a complaint about loose wheels.

PERMATEX COMPANY, INC.

General Offices: Huntington Station, Long Island, N.Y.

Brooklyn 35, N.Y. • Kansas City 15, Kans.

More than 50 Chemical Products for Better Automotive Maintenance

COMMERCIAL CAR JOURNAL, October, 1956

FORM-A-GASKET®

Universal Sealing Compounds

LEAKPROOF • PRESSURE-TIGHT

Check tips like these for new ways you can use Form-A-Gasket, best sealant going for leakproof, pressure-tight assemblies. Form-A-Gasket resists gasoline, water, hot or cold oil—many other liquids and gases. And it's specially made to withstand the pressures of high-compression engines.

Every Shop Needs All 3 Types



No. 1. Sets quickly
—dries hard



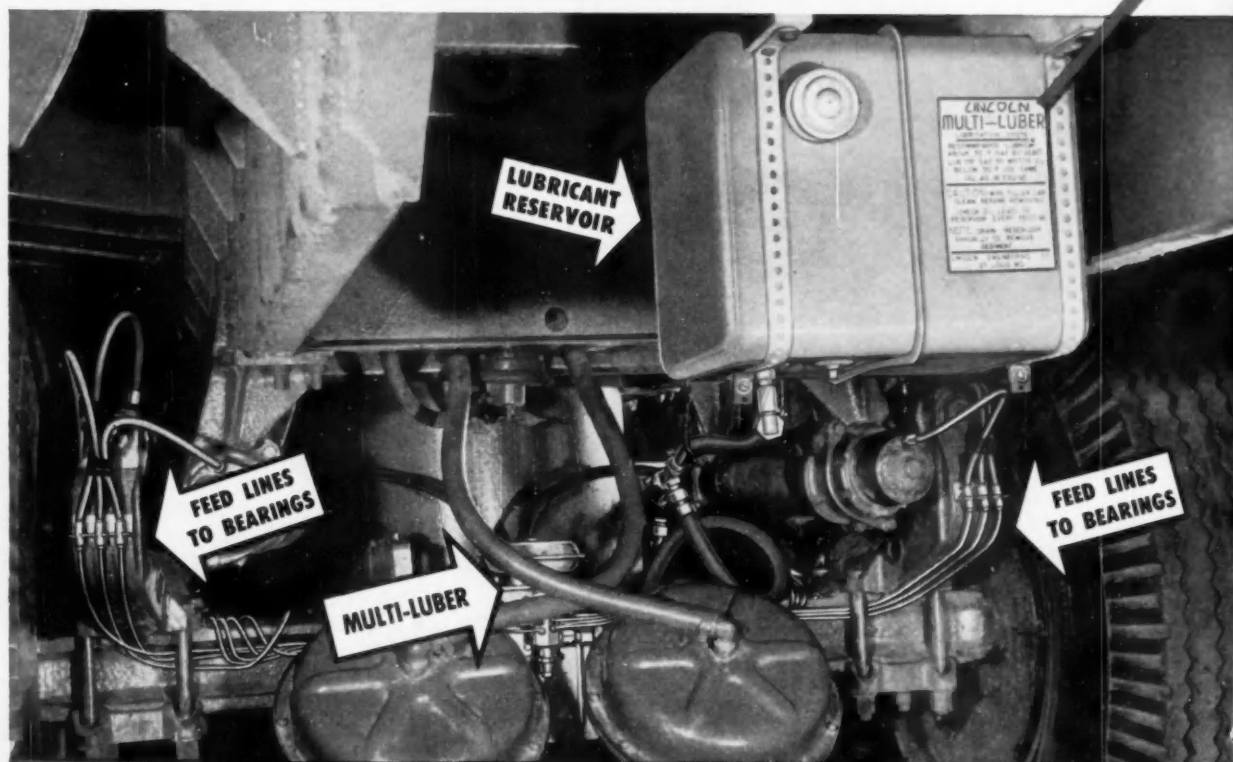
No. 2. Sets slowly
—remains pliable



No. 3. Brushable
liquid—remains tacky

Hundreds of uses around the house, too

One test so outstanding



Imagination for Automation

... **that all
tandem axle trailers
are getting**



Multi-Luber*

PUSH-BUTTON

**POWER
LUBRICATION**

**Writes Mr. T. F. "Doc" Moser
Asst. Vice President—Maintenance
COMMERCIAL MOTOR FREIGHT, INC.
Columbus 3, Ohio:**

"The first MULTI-LUBER System was purchased in February, 1954, and installed on one of our tandem axle trailers for test purposes. At the end of the first year your product had proven itself to our satisfaction and all new tandem axle trailers purchased from this date forward by our Company were equipped with MULTI-LUBER Power Lubrication Systems."



**TO ALL FLEET OWNERS, LINCOLN MULTI-LUBER SYSTEMS
MEAN LESS DOWN-TIME, LOWER MAINTENANCE COSTS**

One prominent fleet operator has reported maintenance savings as high as 90%, all attributable to the use of Lincoln Automatic Power Lubrication! What is more, Lincoln systems keep trucks and trailers

on the road and out of the shop. They do all the thinking for the driver as far as lubrication is concerned...because they are activated every time he steps on the air brakes!

**We have MULTI-LUBER kits for installation on most
trucks and trailers. Write for full particulars.**

*Registered Trade Name

Lincoln

ENGINEERING COMPANY

5701 Natural Bridge Avenue • St. Louis 20, Missouri

OVER 400 FLEETS NOW USING MULTI-LUBER POWER LUBRICATION

COMMERCIAL CAR JOURNAL, October, 1956

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DON'T BE A HEADLINE!

BE SAFE WITH A COLE-HERSEE Master **DISCONNECT** Switch



Send For Our Form
D-177 For Additional
Information.

A FLIP OF THE LEVER AND YOU SHUT OFF ALL CURRENT TO PREVENT:

TAMPERING

Disconnects current when parked or ga-
raged. In many cases results in lower
insurance premiums.

FIRES

Disconnects battery circuits to prevent fires
of any electrical origin.

BATTERY RUN DOWN

No drain if some switches have been un-
knowingly left "On".



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Over 40 Years of Consistently Better Products

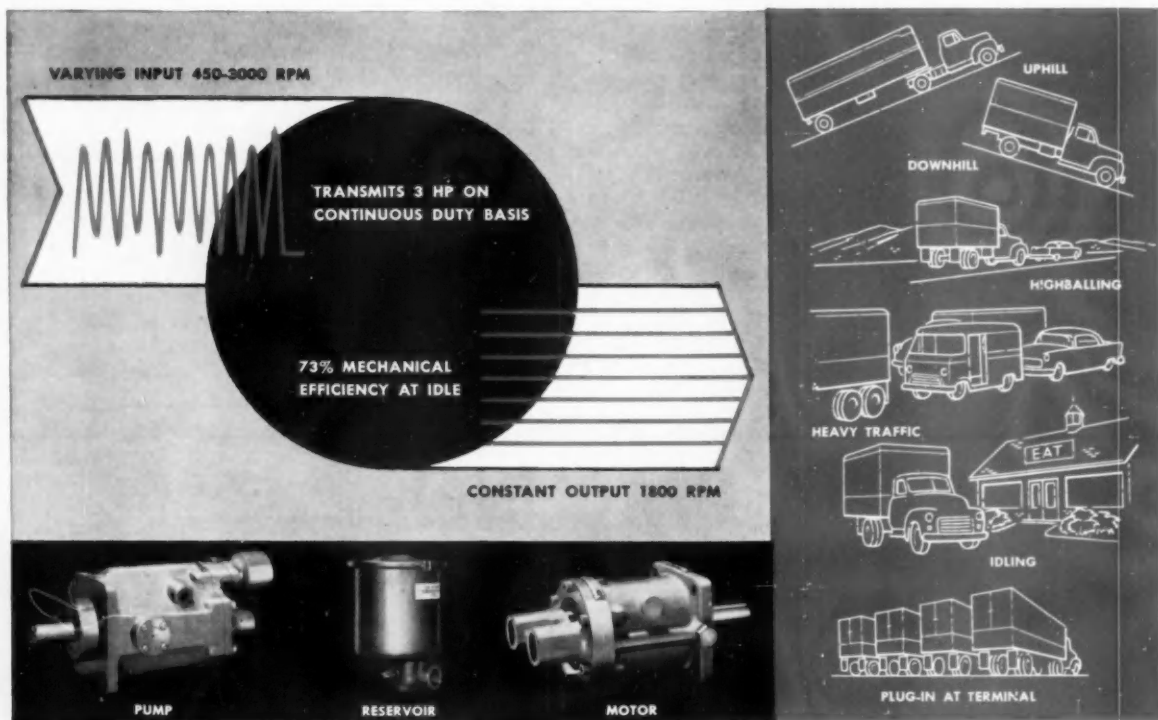
20 OLD COLONY AVENUE, BOSTON 27, MASS.

TRUCK OVERTURNS AND BURNS

A truck carrying inflamma-
ble material crashed and
burned on the heavily traveled
highway. The truck jackknifed
and slid along the highway,
and then tipped on its side. A
few seconds later it burst into
flames. Fire investigators de-
clared that the fire evidently
resulted from an electrical
spark from the truck's igni-
tion system.

NEW SUNDSTRAND CONSTANT SPEED REFRIGERATION DRIVE

*Revolutionary new unit provides full refrigeration capacity at
all truck speeds...eliminates auxiliary gasoline engine*



Lightweight, compact, quiet, easy to install, minimum maintenance

Here is Sundstrand's answer to many of the problems of truck refrigeration. This revolutionary new hydraulic system eliminates the problems inherent with other types. The system is quiet, compact, needs little maintenance, and consumes no fuel.

This new approach to cold-making consists of a variable speed, constant volume hydraulic pump driven from the truck engine by belt or power take-off; a small oil reservoir which includes a filter; and a hydraulic motor which drives the compressor at a con-

stant speed of 1800 rpm. The remarkable feature of the system is that the pump delivers hydraulic fluid to the fluid motor at a constant volume regardless of the operating conditions of the truck. It can be parked, idling, crawling through traffic or up a steep grade, or highballing down the turnpike—still the compressor is driven at the same speed.

This system has been developed specifically for truck refrigeration service to deliver up to 3 hp on a continuous duty basis, with

ample capacity to handle starting loads.

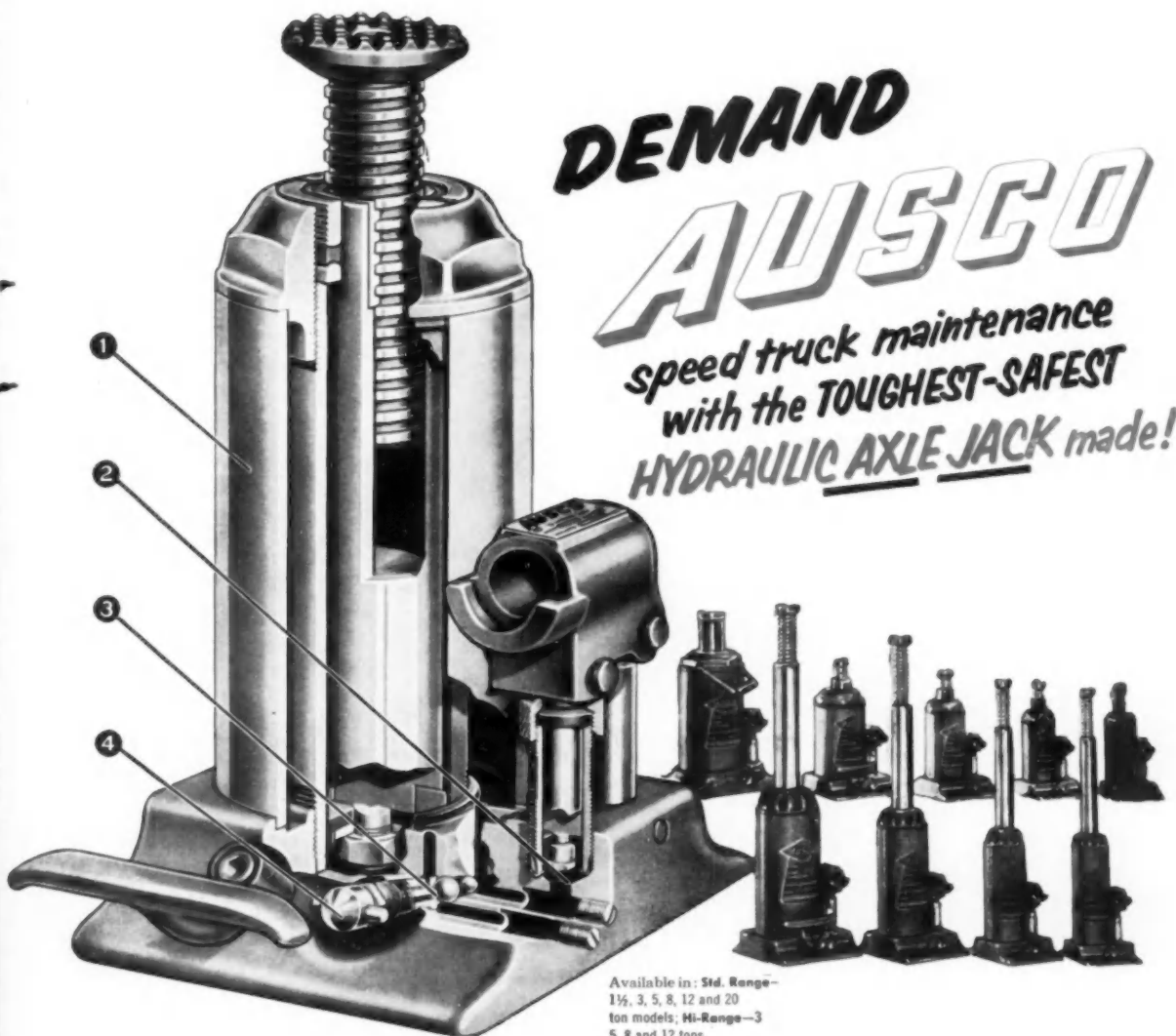
Fleet operators like the new system because it is efficient, easy to install and operate, and almost free from maintenance. Drivers like it because they can literally forget it and concentrate on the truck. Send for data sheet which gives complete technical information on this unit. Continuous full capacity truck refrigeration is ready for you now! Available through truck refrigeration system manufacturers.



SUNDSTRAND HYDRAULIC DIVISION

SUNDSTRAND MACHINE TOOL CO., ROCKFORD, ILLINOIS, U. S. A.

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DEMAND

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*speed truck maintenance
with the **TOUGHEST-SAFEST**
HYDRAULIC AXLE JACK made!*

Available in: **Std. Range**—
1½, 3, 5, 8, 12 and 20
ton models; **Hi-Range**—3
5, 8 and 12 tons.

POWER-PACKED for long-life Service!

Rugged Ausco Hydraulic Axle Jacks earned their reputation lifting full capacity loads under the toughest truck service applications! Each is made with the specialized knowledge Auto Specialties has gained supplying millions of jacks to car and truck manufacturers, garages and service stations.

Where mechanical axle jacks are needed, choose the best—Ausco! Thousands are furnished as original truck equipment yearly... proof of their quality and dependability!

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3. Say Good-By to Hydraulic Operating Trouble with Ausco's exclusive straight-line oil flow
4. Smooth-As-Silk Load Lowering at any desired speed is made possible by Ausco's trouble-free release valve

Call your Jobber... DEMAND **AUSCO TOUGH, SAFE, DEPENDABLE JACKS!**

AUTO SPECIALTIES MFG. CO., INC., Saint Joseph, Michigan • Other Plants In Benton Harbor and Hartford, Michigan and Windsor, Ont., Canada

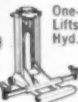
AUSCO manufactures quality jacks for every automotive need... service facilities are available in your locality!



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Jack



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Lifts
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Service Jacks
1½, 1½, 2, 4
and 10 tons



Garage
Horse
2 and
5 tons



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Pints, Quarts,
Gallons

87% of FWD sales are repeat sales— to fleets that buy from experience



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